SERVICE MANUAL

TranStar®
PC-100/PC-200/
PC-300/PC-350/
PC-400/PC-450/
PC-500/PC-550/
TR-500/SG-500/
OB-450/OB-550/
EL-550
Series Stretcher
From Hill-Rom

Product No. K8000/K8005/K8010/K8020/K8030/K8040/K8050

For Parts Or Technical Assistance **man115re**
USA 1-800-445-3720 Canada 1-800-267-2337
International: Contact your distributor.

TranStar® PC-100/PC-200/ PC-300/PC-350/PC-400/PC-450/ PC-500/PC-550/TR-500/SG-500/ OB-450/OB-550/EL550 Series Stretcher Service Manual

Revisions

Revision Letter	Pages Affected	Date
Original Issue		March, 1996
Preliminary Revision A	All	December, 1996
A	All	February, 1997
B	All	August, 1997
C	All	May, 1998
D	All	October, 1998
E	All	August, 2002

man115re

© 2002 Hill-Rom Services, Inc. ALL RIGHTS RESERVED.

No part of this text shall be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information or retrieval system without written permission from Hill-Rom Services, Inc. (Hill-Rom). The information in this manual is confidential and may not be disclosed to third parties without the prior written consent of Hill-Rom.

The information in this manual is confidential and may not be disclosed to third parties without the prior written consent of Hill-Rom.

Sixth Edition

First Printing 1996

Printed in the USA

Allen™ is a trademark of Industrial Fasteners, Inc.

Celcon® is a registered trademark of Hoechst Celanese Corporation.

Comfortline® is a registered trademark of Hill-Rom Services, Inc.

Hill-Rom® is a registered trademark of Hill-Rom Services, Inc.

Loctite® is a registered trademark of Loctite Corporation.

Mechlok® is a registered trademark of P.L. Porter Company.

Oilite® is a registered trademark of Beemer Precision, Incorporated.

Resiten® is a registered trademark of L.C. Industries, Inc.

Steering Plus™ is a trademark of Hill-Rom Services, Inc.

Torx® is a registered trademark of Textron, Inc.

TranStar® is a registered trademark of Hill-Rom Services, Inc.

Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

The information contained in this manual is subject to change without notice. Hill-Rom makes no commitment to update or to keep current the information contained in this manual.

The only product warranty intended by Hill-Rom is the express, written warranty accompanying the bill of sale to the original purchaser. Hill-Rom makes no other warranty, express or implied, and in particular makes no warranty of merchantability or fitness for a particular purpose.

Additional copies of this manual can be obtained from Hill-Rom.

To order additional copies of this manual, call (800) 445-3720 and place a parts order for part number man115re.

NOTES:

Table of Contents

Chapter 1: Introduction

Purpose . . . . . 1 - 7

Audience . . . . . 1 - 7

Organization . . . . . 1 - 7

Chapter 1: Introduction . . . . . 1 - 7

Chapter 2: Troubleshooting Procedures . . . . . 1 - 7

Chapter 3: Theory of Operation . . . . . 1 - 7

Chapter 4: Removal, Replacement, and Adjustment Procedures . . . . . 1 - 7

Chapter 5: Parts List . . . . . 1 - 8

Chapter 6: General Procedures . . . . . 1 - 8

Chapter 7: Accessories . . . . . 1 - 8

Typographical Conventions . . . . . 1 - 9

Introduction . . . . . 1 - 10

Operating Precautions . . . . . 1 - 10

Stretcher Positions . . . . . 1 - 10

Specifications . . . . . 1 - 17

Physical Description . . . . . 1 - 17

Procedural/Trauma/Fixed Height/OB/GYN Stretcher Back Section Inclination . . . . . 1 - 19

Surgical Stretcher Back Section Inclination . . . . . 1 - 19

Electric Stretcher Back Section Inclination . . . . . 1 - 19

Procedural/Surgical Stretcher Thigh Section Inclination . . . . . 1 - 19

Electric Stretcher Thigh Section Inclination . . . . . 1 - 19

Procedural/Electric/Fixed Height/Surgical Stretcher Foot Section Inclination . . . . . 1 - 20

Trauma Stretcher Foot Section Inclination . . . . . 1 - 20

Surgical Stretcher Articulating Head Section Articulation . . . . . 1 - 20

Surgical Stretcher—Surgical Rail . . . . . 1 - 20

OB/GYN Stretcher Store-Away Foot Section . . . . . 1 - 20
OB/GYN Stretcher Foot Supports . . . . . 1 - 20
OB/GYN Stretcher Gliding Litter. . . . . 1 - 21
Hilow . . . . . 1 - 21
Surgical Stretcher—Surgical Brake/Steer Pedal. . . . . 1 - 21
Steering . . . . . 1 - 21
Brake. . . . . 1 - 21
Trendelenburg/Reverse Trendelenburg . . . . . 1 - 22
Siderails . . . . . 1 - 22
Bumpers . . . . . 1 - 22
OB/GYN Stretcher Headboard . . . . . 1 - 22
Mattress Sleep Surface . . . . . 1 - 23
Procedural/Fixed Height/Electric/Trauma Stretcher IV Pole Accommodation . . . . . 1 - 23
Surgical Stretcher IV Pole Accommodation. . . . . 1 - 23
OB/GYN Stretcher IV Pole Accommodation. . . . . 1 - 23
Surgical Stretcher Head Section Cushions . . . . . 1 - 23
Mattress Configuration . . . . . 1 - 23
Electrical Description—Electric Stretcher . . . . . 1 - 24
Regulations, Standards, and Codes. . . . . 1 - 24
Procedural Stretcher . . . . . 1 - 24
Electric Stretcher. . . . . 1 - 24
Fixed Height Stretcher . . . . . 1 - 24
Trauma Stretcher. . . . . 1 - 24
Surgical Stretcher . . . . . 1 - 25
OB/GYN Stretcher . . . . . 1 - 25
Model Identification . . . . . 1 - 25
General Operation. . . . . 1 - 26
Siderail Operation . . . . . 1 - 26
Raising the Siderail (PC-100/PC-200) . . . . . 1 - 26
Raising the Siderail

(PC-300/PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/SG-500/
OB-450/OB-550/EL-550) . . . . . 1 - 26

Lowering the Siderail (PC-100/PC-200) . . . . . 1 - 26

Lowering the Siderail
(PC-300/PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/SG-500/
OB-450/OB-550/EL-550) . . . . . 1 - 26

Fixed Height/Procedural/Trauma/OB/GYN Stretcher Back Articulation . . . 1 - 27

Raising the Back Section . . . . . 1 - 27

Lowering the Back Section . . . . . 1 - 27

Electric Stretcher Back Articulation . . . . . 1 - 27

Nurse Controls . . . . . 1 - 27

Raising the Back Section Using the Nurse Controls . . . . . 1 - 28

Lowering the Back Section Using the Nurse Controls . . . . . 1 - 28

Patient Controls . . . . . 1 - 28

Raising the Back Section Using the Patient Controls . . . . . 1 - 28

Lowering the Back Section Using the Patient Controls . . . . . 1 - 29

Electric Stretcher Manual Back Articulation . . . . . 1 - 29

Raising the Back Section Using the Manual Crank Handle . . . . . 1 - 29

Lowering the Back Section Using the Manual Crank Handle . . . . . 1 - 29

Surgical Stretcher Back Articulation with PACU Extenders in Position
(Extenders Around the Head Section) . . . . . 1 - 30

PACU Extender Position—Raising the Back Section . . . . . 1 - 30

PACU Extender Position—Lowering the Back Section . . . . . 1 - 30

Surgical Stretcher Back Articulation with PACU Extenders in the
Armboard Position (or When Removed from the Stretcher) . . . . . 1 - 30

PACU Extenders in the Armboard Position (or When Removed
from the Stretcher)—Raising the Back Section . . . . . 1 - 30

PACU Extenders in the Armboard Position (or When Removed
from the Stretcher)—Lowering the Back Section . . . . . 1 - 31

Procedural/Surgical Stretcher Thigh Articulation . . . . . 1 - 31

Raising or Lowering the Thigh Section . . . . . 1 - 31

Electric Stretcher Thigh Articulation . . . . . 1 - 31

Raising the Thigh Section Using the Patient Controls . . . . . 1 - 31

Lowering the Thigh Section Using the Patient Controls . . . . . 1 - 32
Electric Stretcher Manual Thigh Articulation . . . . . 1 - 32
Raising the Thigh Section Using the Manual Crank Handle . . . . . 1 - 32
Lowering the Thigh Section Using the Manual Crank Handle . . . . . 1 - 32
Surgical Stretcher Articulating Head Section Positioning . . . . . 1 - 32
Manual Foot . . . . . 1 - 33
Hilow Operation . . . . . 1 - 33
Trendelenburg/Reverse Trendelenburg Operation . . . . . 1 - 33
Trendelenburg . . . . . 1 - 33
Reverse Trendelenburg . . . . . 1 - 34
Quick Trendelenburg . . . . . 1 - 34
Leveling The Sleep Surface . . . . . 1 - 34
Central Brake and Steer . . . . . 1 - 34
Steer . . . . . 1 - 34
Brake . . . . . 1 - 34
Electric Stretcher CPR Release . . . . . 1 - 35
Power Cord Storage . . . . . 1 - 35
Trauma Stretcher Cassette Lift Mechanism (Handle) . . . . . 1 - 35
Activating . . . . . 1 - 35
Storing . . . . . 1 - 35
Trauma Stretcher—Restraint . . . . . 1 - 36
Restraining the Patient's Wrist . . . . . 1 - 36
Restraining the Patient's Ankle . . . . . 1 - 36
OB/GYN Stretcher Patient Grip Handle . . . . . 1 - 36
Raising the Patient Grip Handle . . . . . 1 - 36
Lowering the Patient Grip Handle . . . . . 1 - 37
OB/GYN Stretcher Foot Support . . . . . 1 - 37
Telescoping Upward or Downward . . . . . 1 - 37
Telescoping Outward or Inward . . . . . 1 - 37
OB/GYN Stretcher Placenta Basin . . . . . 1 - 38

Removing the Placenta Basin . . . . . 1 - 38
Replacing the Placenta Basin . . . . . 1 - 38
OB/GYN Stretcher Gliding Litter. . . . . 1 - 38
Exam Position . . . . . 1 - 39
Procedural Position . . . . . 1 - 39
OB/GYN Stretcher Store-Away Foot Section . . . . . 1 - 39
Storing. . . . . 1 - 39
Replacing . . . . . 1 - 40
OB/GYN Stretcher Integrated Fiber Optic Exam Light . . . . . 1 - 40
Operating . . . . . 1 - 40
Storing. . . . . 1 - 40
Safety Tips . . . . . 1 - 41
Warning and Caution Labels . . . . . 1 - 49

Chapter 2: Troubleshooting Procedures

Getting Started . . . . . 2 - 5
Initial Actions . . . . . 2 - 5
Procedural Stretcher Function Checks . . . . . 2 - 6
Brake/Steer Function . . . . . 2 - 6
Hilow Function . . . . . 2 - 7
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 9
Siderail Function. . . . . 2 - 10
Back Section Function . . . . . 2 - 10
Thigh Section Function. . . . . 2 - 10
Optional Push Handle Function . . . . . 2 - 10
Fixed Height Stretcher Function Checks . . . . . 2 - 10
Brake/Steer Function . . . . . 2 - 10
Siderail Function. . . . . 2 - 11
Back Section Function . . . . . 2 - 12
Optional Push Handle Function . . . . . 2 - 12
Trauma Stretcher Function Checks. . . . . 2 - 12
Brake/Steer Function . . . . . 2 - 12

Hilow Function . . . . . 2 - 13
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 15
Siderail Function . . . . . 2 - 15
Back Section Function . . . . . 2 - 15
Foot Section Function . . . . . 2 - 15
Cassette Lift Function . . . . . 2 - 16
Optional Push Handle Function . . . . . 2 - 16
Surgical Stretcher Function Checks . . . . . 2 - 16
Brake/Steer Function . . . . . 2 - 16
Hilow Function . . . . . 2 - 17
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 19
Siderail Function . . . . . 2 - 19
Back Section Function . . . . . 2 - 19
Headrest Function . . . . . 2 - 20
Thigh Section Function . . . . . 2 - 20
OB/GYN Stretcher Function Checks . . . . . 2 - 20
Brake/Steer Function . . . . . 2 - 20
Hilow Function . . . . . 2 - 21
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 23
Siderail Function . . . . . 2 - 24
Back Section Function . . . . . 2 - 24
Foot Support Function . . . . . 2 - 24
Foot Section Function . . . . . 2 - 24
Electric Stretcher Function Checks . . . . . 2 - 25
Brake/Steer Function . . . . . 2 - 25
Hilow Function . . . . . 2 - 26
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 27
Siderail Function . . . . . 2 - 28
Patient Controls Function . . . . . 2 - 28
Nurse Controls Function . . . . . 2 - 29

Optional Push Handles Function . . . . . 2 - 30
Manual Head Section Articulation Function . . . . . 2 - 31
Manual Thigh Section Articulation Function . . . . . 2 - 31
CPR Release Function . . . . . 2 - 31
Final Actions . . . . . 2 - 32
Reduced Braking Ability . . . . . 2 - 33
Loss of the Steering Plus™ Steering System . . . . . 2 - 35
Loss of Corner Steer . . . . . 2 - 36
Stretcher Will Not Go Into the Neutral Position . . . . . 2 - 38
Reduced Pedal Pumping . . . . . 2 - 40
Stretcher Will Not Lower . . . . . 2 - 42
Siderail Malfunction . . . . . 2 - 44
Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Does Not Raise/Lower Correctly . . . . . 2 - 47
Procedural Stretcher Thigh Panel Will Not Raise/Lower . . . . . 2 - 48
OB/GYN Stretcher Foot Supports Malfunction . . . . . 2 - 49
OB/GYN Foot Section Does Not Release Correctly . . . . . 2 - 51
Push Handle Malfunction . . . . . 2 - 52
Electric Stretcher Back Panel Does Not Raise/Lower Electrically . . . . . 2 - 53
Electric Stretcher Thigh Panel Does Not Raise/Lower Electrically . . . . . 2 - 54
Manual Back Articulation . . . . . 2 - 55
Manual Thigh Articulation . . . . . 2 - 56
Trauma Stretcher Foot Section Malfunction . . . . . 2 - 57
Trauma Stretcher Cassette Lift Handle Malfunction . . . . . 2 - 58
Surgical Brake/Steer Pedal Malfunction . . . . . 2 - 59
Surgical Stretcher Back Section—Release Handle/Gas Spring Malfunction . . . . 2 - 60
Surgical Stretcher Articulating Headrest—Push Handle Release/Gas Spring Malfunction . . . . . 2 - 61

Chapter 3: Theory of Operation

Schematics/Wiring Diagrams . . . . . 3 - 3
Theory of Operation . . . . . 3 - 6

Control Board . . . . . 3 - 6
Power Supply . . . . . 3 - 6
Input Circuit . . . . . 3 - 7
Logic . . . . . 3 - 7
Comparator Circuit . . . . . 3 - 7
LED Outputs . . . . . 3 - 8
Relay Outputs . . . . . 3 - 8
Potentiometer Calibration Board . . . . . 3 - 8

Chapter 4: Removal, Replacement, and Adjustment Procedures

Introduction . . . . . 4 - 6
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN Stretcher Siderail . . . . . 4 - 7
Removal . . . . . 4 - 7
Replacement . . . . . 4 - 8
Switching the PC-300–PC-550 Procedural/Fixed Height/ Trauma Stretcher Siderail to the Opposite Side of the Stretcher . . . . . 4 - 10
Electric Stretcher Siderail . . . . . 4 - 12
Removal . . . . . 4 - 12
Replacement . . . . . 4 - 14
PC-100/PC-200 Procedural Stretcher Siderail Latch . . . . . 4 - 17
Removal . . . . . 4 - 17
Replacement . . . . . 4 - 18
PC-100/PC-200 Procedural Stretcher Siderail Tube . . . . . 4 - 19
Removal . . . . . 4 - 19
Replacement . . . . . 4 - 20
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Siderail Latch . . . . . 4 - 21
Removal . . . . . 4 - 21
Replacement . . . . . 4 - 21
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Siderail End Tube . . . . . 4 - 23
Removal . . . . . 4 - 25

Replacement . . . . . 4 - 25
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/
OB/GYN/Electric Stretcher Siderail Transfer Stop/Common Tube. . . . . 4 - 26
Removal . . . . . 4 - 26
Replacement . . . . . 4 - 26
OB/GYN Stretcher Patient Grip Handle. . . . . 4 - 27
Removal . . . . . 4 - 27
Replacement . . . . . 4 - 28
Electric Stretcher Left/Right Siderail Cable Assembly and Upright Tube. . . . . 4 - 29
Removal . . . . . 4 - 29
Replacement . . . . . 4 - 31
Electric Stretcher Patient Control Switch . . . . . 4 - 33
Removal . . . . . 4 - 33
Replacement . . . . . 4 - 34
Electric Stretcher Nurse Control Switch. . . . . 4 - 35
Removal . . . . . 4 - 35
Replacement . . . . . 4 - 36
Electric Stretcher Control Board. . . . . 4 - 37
Removal . . . . . 4 - 37
Replacement . . . . . 4 - 40
Electric Stretcher Potentiometer . . . . . 4 - 42
Removal . . . . . 4 - 42
Replacement . . . . . 4 - 44
Adjustment . . . . . 4 - 44
Electric Stretcher Power Cord Assembly . . . . . 4 - 46
Removal . . . . . 4 - 46
Replacement . . . . . 4 - 47
Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Gas Spring . . 4 - 49
Removal . . . . . 4 - 49
Replacement . . . . . 4 - 51
Adjustment . . . . . 4 - 51

Surgical Stretcher Back Section Gas Spring. . . . . 4 - 53
Removal . . . . . 4 - 53
Replacement . . . . . 4 - 54
Adjustment . . . . . 4 - 54
Surgical Stretcher Articulating Headrest Gas Spring . . . . . 4 - 56
Removal . . . . . 4 - 56
Replacement . . . . . 4 - 57
Adjustment . . . . . 4 - 57
PC-300–PC-550 Procedural/Surgical Stretcher Knee Screw Assembly . . . . . 4 - 59
Removal . . . . . 4 - 59
Replacement . . . . . 4 - 60
Electric Stretcher Knee Drive Assembly . . . . . 4 - 61
Removal . . . . . 4 - 61
Replacement . . . . . 4 - 62
Electric Stretcher Head Drive Assembly . . . . . 4 - 64
Removal . . . . . 4 - 64
Replacement . . . . . 4 - 66
Electric Stretcher CPR Release Cable Assembly . . . . . 4 - 68
Removal . . . . . 4 - 68
Replacement . . . . . 4 - 70
Adjustment . . . . . 4 - 71
Procedural/Electric/Trauma/Surgical/OB/GYN Stretcher Upper Frame . . . . . 4 - 72
Removal . . . . . 4 - 72
Replacement . . . . . 4 - 74
Fixed Height Stretcher Upper Frame . . . . . 4 - 76
Removal . . . . . 4 - 76
Adjustment . . . . . 4 - 77
Replacement . . . . . 4 - 78
Base Shroud . . . . . 4 - 80
Removal . . . . . 4 - 80

Replacement . . . . . 4 - 81
OB/GYN Stretcher Upper Frame Catch Shroud. . . . . 4 - 82
Removal . . . . . 4 - 82
Replacement . . . . . 4 - 83
OB/GYN Stretcher Foot Support Mechlok® Device . . . . . 4 - 84
Removal . . . . . 4 - 84
Replacement . . . . . 4 - 86
OB/GYN Stretcher Foot Support Gas Spring. . . . . 4 - 87
Removal . . . . . 4 - 87
Replacement . . . . . 4 - 89
PC-100/PC-200 Procedural Stretcher Caster . . . . . 4 - 91
Removal . . . . . 4 - 91
Replacement . . . . . 4 - 93
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Caster. . . . . 4 - 95
Removal . . . . . 4 - 95
Replacement . . . . . 4 - 97
Caster Brake . . . . . 4 - 99
Adjustment . . . . . 4 - 99
Hydraulic Cylinder . . . . . 4 - 100
Removal . . . . . 4 - 100
Replacement . . . . . 4 - 101
Adjustment . . . . . 4 - 103
Side Pedals . . . . . 4 - 103
Foot-End Pedals . . . . . 4 - 104
Steering Plus™ Steering System Assembly (Old Style) . . . . . 4 - 105
Removal . . . . . 4 - 105
Replacement . . . . . 4 - 106
Adjustment . . . . . 4 - 106
Steering Plus™ Steering System Assembly (New Style). . . . . 4 - 108
Removal . . . . . 4 - 108

Replacement . . . . . 4 - 109

Chapter 5: Parts List

Warranty . . . . . 5 - 5

Service Parts Ordering . . . . . 5 - 7

Exchange Policy . . . . . 5 - 10

In-Warranty Exchanges . . . . . 5 - 10

Out-of-Warranty Exchanges . . . . . 5 - 10

Recommended Spare Parts . . . . . 5 - 11

PC-100/PC-200 Procedural Stretcher Base Assembly . . . . . 5 - 12

PC-300–PC-550 Procedural/Electric/Trauma/OB/GYN Stretcher Base Assembly5 - 16

Surgical Stretcher Base Assembly . . . . . 5 - 20

Fixed Height Stretcher Base Assembly . . . . . 5 - 24

Fixed Height Stretcher Upper Frame Column Weldment and Base Shroud . . . . 5 - 28

Pedals (Stretchers With Side Pedals) . . . . . 5 - 30

Pedals (Stretchers With Side and Foot-End Pedals) . . . . . 5 - 34

Pedals (Stretchers With Foot-End Pedals) . . . . . 5 - 38

Steering Plus™ Steering System (Old Style) . . . . . 5 - 42

Steering Plus™ Steering System (New Style) . . . . . 5 - 46

PC-100/PC-200 Procedural Stretcher Upper Frame Assembly . . . . . 5 - 48

PC-300–PC-550 Procedural Stretcher Upper Frame Assembly . . . . . 5 - 52

PC-300–PC-550 Procedural Stretcher Upper Frame Panel Assembly . . . . . 5 - 56

Surgical Stretcher Upper Frame Assembly . . . . . 5 - 60

Surgical Stretcher Upper Frame—Articulating Headrest . . . . . 5 - 64

OB/GYN Stretcher Upper Frame Assembly (Sheet 1 of 2) . . . . . 5 - 66

OB/GYN Stretcher Upper Frame Assembly (Sheet 2 of 2) . . . . . 5 - 70

OB/GYN Stretcher Upper Frame Panel Assembly . . . . . 5 - 72

Fixed Height Stretcher Upper Frame Assembly . . . . . 5 - 76

Trauma Stretcher Upper Frame Assembly . . . . . 5 - 80

Trauma Stretcher Upper Frame Panel Assembly . . . . . 5 - 82

Trauma Stretcher Upper Frame Labels . . . . . 5 - 84

Electric Stretcher Upper Frame Assembly . . . . . 5 - 86
Electric Stretcher Mattress Weldment . . . . . 5 - 90
Electric Stretcher Head and Knee Drive Assembly . . . . . 5 - 92
Electric Stretcher Head Drive/CPR Assemblies . . . . . 5 - 94
Electric Stretcher Gearbox Assembly . . . . . 5 - 96
Electric Stretcher Cable/Wire Routing With Bolt-on Electric Box . . . . . 5 - 98
Electric Stretcher Cable/Wire Routing With Welded-on Electric Box . . . . . 5 - 100
Electric Stretcher Cable/Wire Assemblies With Bolt-on Electric Box . . . . . 5 - 102
Electric Stretcher Cable/Wire Assemblies With Welded-on Electric Box . . . . . 5 - 104
Electric Stretcher Control Board Assembly (120V AC and 230V AC) . . . . . 5 - 106
PC-300–PC-550 Procedural/Fixed Height/Trauma Stretcher Siderail Assembly 5 - 110
Surgical Stretcher Siderail Assembly . . . . . 5 - 114
Electric Stretcher Siderail Assembly . . . . . 5 - 118
OB/GYN Stretcher Siderail Assembly . . . . . 5 - 122
PC-100/PC-200 Procedural Stretcher IV Pole Module . . . . . 5 - 126
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/OB/GYN/
Electric Stretcher IV Pole Module . . . . . 5 - 128
Head/Footboard—P4120CT . . . . . 5 - 130
Convertible Footboard—P350CT . . . . . 5 - 132
IV Transporter—P491 . . . . . 5 - 134
Liquid Oxygen Tank Holder—P273 . . . . . 5 - 136
Oxygen Tank Holder—P276 . . . . . 5 - 138
ISS Socket Adapter—P163 . . . . . 5 - 139
IV Pole—P2217 and ISS Transfer Pole—P158 . . . . . 5 - 140
Security Straps—P349 . . . . . 5 - 142
Push Handles . . . . . 5 - 144
Armboard—P344AT . . . . . 5 - 146
Stirrup Assembly—P347AT . . . . . 5 - 148
Trauma Stretcher Upright Chest Assembly—P279AT (Old Style) . . . . . 5 - 150
Trauma Stretcher Upright Chest Assembly—P279AT (New Style) . . . . . 5 - 152
Trauma Stretcher Lateral Cassette Holder—P264 . . . . . 5 - 154

Surgical Stretcher PACU Extender—P261 . . . . . 5 - 156
Surgical Stretcher Head Positioning Strap—P449 . . . . . 5 - 159
Surgical Stretcher Superior Wrist Rest—P262A01 . . . . . 5 - 160
Surgical Stretcher Temporal Wrist Rest—P262A02 . . . . . 5 - 162
OB/GYN Stretcher Integrated Fiber Optic Exam Light—P7915AT . . . . . 5 - 164
OB/GYN Stretcher Placenta Basin—P265 . . . . . 5 - 166
OB/GYN Stretcher Telescoping Calf Support—P35745AT . . . . . 5 - 168
Mattresses . . . . . 5 - 170

Chapter 6: General Procedures

Cleaning and Care . . . . . 6 - 3
Caring For The Wood Components . . . . . 6 - 3
General Cleaning . . . . . 6 - 4
Steam Cleaning . . . . . 6 - 4
Spray Washing (Not Applicable to Electric Stretcher) . . . . . 6 - 4
Cleaning Hard to Clean Spots . . . . . 6 - 4
Disinfecting . . . . . 6 - 5
Mattress Draping (OB/GYN Stretcher) . . . . . 6 - 5
Component Handling—Electric Stretcher . . . . . 6 - 6
P.C. Board . . . . . 6 - 6
Lubrication Requirements . . . . . 6 - 7
Preventive Maintenance . . . . . 6 - 8
Preventive Maintenance Schedule . . . . . 6 - 9
Preventive Maintenance Checklist . . . . . 6 - 12
Tool and Supply Requirements . . . . . 6 - 15

Chapter 7: Accessories

Accessories . . . . . 7 - 5
Infusion Support System (ISS) Transfer Pole . . . . . 7 - 7
Installation . . . . . 7 - 7
IV Pole . . . . . 7 - 8
Installation . . . . . 7 - 8

Removal . . . . . 7 - 8
Permanent IV Pole . . . . . 7 - 9
Raising . . . . . 7 - 9
Lowering . . . . . 7 - 9
Patient Tray . . . . . 7 - 10
Installation . . . . . 7 - 10
Removal . . . . . 7 - 10
Footboard . . . . . 7 - 11
Using the Footboard as a Stretcher Extender . . . . . 7 - 11
Installation . . . . . 7 - 11
Removal . . . . . 7 - 11
Convertible Footboard . . . . . 7 - 12
Installing as a Footboard . . . . . 7 - 12
Installing as a Transport Shelf/Charting Area . . . . . 7 - 12
Storing . . . . . 7 - 13
Installing as a Foot Extender . . . . . 7 - 13
Removal . . . . . 7 - 13
IV Transporter . . . . . 7 - 14
Installation . . . . . 7 - 14
Oxygen Tank Holder . . . . . 7 - 17
Installation . . . . . 7 - 17
Liquid Oxygen Tank Holder . . . . . 7 - 18
Installation . . . . . 7 - 18
Push Handles . . . . . 7 - 19
Installation . . . . . 7 - 19
Chart Holder . . . . . 7 - 21
Installation . . . . . 7 - 21
Removal . . . . . 7 - 21
Security Straps . . . . . 7 - 22
Installation . . . . . 7 - 22
Removal . . . . . 7 - 22

Utility Tray . . . . . 7 - 23
Installation . . . . . 7 - 23
Removal . . . . . 7 - 23
Armboard . . . . . 7 - 25
Installation . . . . . 7 - 25
Upright Chest Cassette Holder (Old Style). . . . . 7 - 27
Installation . . . . . 7 - 27
Upright Chest Cassette Holder—P279AT (New Style) . . . . . 7 - 29
Installation . . . . . 7 - 29
Removal . . . . . 7 - 31
Adjustment . . . . . 7 - 31
Cleaning . . . . . 7 - 31
Lateral Cassette Holder. . . . . 7 - 32
Installation . . . . . 7 - 32
Ankle Stirrups . . . . . 7 - 33
Installation . . . . . 7 - 33
PACU Extender . . . . . 7 - 35
Installing the PACU Extender . . . . . 7 - 35
Using the PACU Extender as an Armboard . . . . . 7 - 36
Returning the PACU Extender from the Armboard Position to Extender . . . 7 - 36
Superior Wrist Rest. . . . . 7 - 37
Installation . . . . . 7 - 37
Removal . . . . . 7 - 38
Temporal Wrist Rest . . . . . 7 - 39
Installation . . . . . 7 - 39
Removal . . . . . 7 - 40
Gas Delivery System . . . . . 7 - 41
Installation . . . . . 7 - 41
Cleaning . . . . . 7 - 42
Head Positioning Strap . . . . . 7 - 43

Installation . . . . . 7 - 43
Placenta Basin—P265. . . . . 7 - 45
Installation . . . . . 7 - 45
Removal . . . . . 7 - 46
Cleaning . . . . . 7 - 46
Telescoping Calf Supports—P35745AT . . . . . 7 - 47
Installation . . . . . 7 - 47
Adjustment . . . . . 7 - 48
Storage . . . . . 7 - 48
Cleaning . . . . . 7 - 49
Integrated Fiber Optic Exam Light—P7915AT . . . . . 7 - 50
Factory Installation . . . . . 7 - 50
Complete (Non-Factory Installed) Installation . . . . . 7 - 52
Cleaning . . . . . 7 - 56
Headboard Assembly—P4120CT. . . . . 7 - 57
Installation . . . . . 7 - 57
Removal . . . . . 7 - 57
Steering Plus™ Steering System Field Upgrade—98V235 . . . . . 7 - 58
Field Upgrade (Factory Installed) Installation . . . . . 7 - 58
Removal . . . . . 7 - 65
Adjustment . . . . . 7 - 65
Cleaning . . . . . 7 - 66

1

Chapter 1 Introduction

Chapter Contents

Purpose . . . . . 1 - 7
Audience . . . . . 1 - 7
Organization . . . . . 1 - 7
Chapter 1: Introduction . . . . . 1 - 7
Chapter 2: Troubleshooting Procedures . . . . . 1 - 7
Chapter 3: Theory of Operation . . . . . 1 - 7
Chapter 4: Removal, Replacement, and Adjustment Procedures . . . . . 1 - 7
Chapter 5: Parts List . . . . . 1 - 8
Chapter 6: General Procedures . . . . . 1 - 8
Chapter 7: Accessories . . . . . 1 - 8
Typographical Conventions . . . . . 1 - 9
Introduction . . . . . 1 - 10
Operating Precautions . . . . . 1 - 10
Stretcher Positions . . . . . 1 - 10
Specifications . . . . . 1 - 17
Physical Description . . . . . 1 - 17
Procedural/Trauma/Fixed Height/OB/GYN Stretcher Back Section Inclination . . . . . 1 - 19
Surgical Stretcher Back Section Inclination . . . . . 1 - 19
Electric Stretcher Back Section Inclination . . . . . 1 - 19
Procedural/Surgical Stretcher Thigh Section Inclination . . . . . 1 - 19
Electric Stretcher Thigh Section Inclination . . . . . 1 - 19
Procedural/Electric/Fixed Height/Surgical Stretcher Foot Section Inclination . . . . . 1 - 20

Trauma Stretcher Foot Section Inclination . . . . . 1 - 20
Surgical Stretcher Articulating Head Section Articulation. . . . . 1 - 20
Surgical Stretcher—Surgical Rail. . . . . 1 - 20
OB/GYN Stretcher Store-Away Foot Section . . . . . 1 - 20
OB/GYN Stretcher Foot Supports . . . . . 1 - 21
OB/GYN Stretcher Gliding Litter. . . . . 1 - 21
Hilow . . . . . 1 - 21
Surgical Stretcher—Surgical Brake/Steer Pedal. . . . . 1 - 21
Steering . . . . . 1 - 21
Brake . . . . . 1 - 22
Trendelenburg/Reverse Trendelenburg . . . . . 1 - 22
Siderails . . . . . 1 - 22
Bumpers . . . . . 1 - 22
OB/GYN Stretcher Headboard . . . . . 1 - 23
Mattress Sleep Surface . . . . . 1 - 23
Procedural/Fixed Height/Electric/Trauma Stretcher IV Pole Accommodation . . . . . 1 - 23
Surgical Stretcher IV Pole Accommodation. . . . . 1 - 23
OB/GYN Stretcher IV Pole Accommodation. . . . . 1 - 23
Surgical Stretcher Head Section Cushions . . . . . 1 - 23
Mattress Configuration . . . . . 1 - 24
Electrical Description—Electric Stretcher . . . . . 1 - 24
Regulations, Standards, and Codes. . . . . 1 - 24
Procedural Stretcher . . . . . 1 - 24
Electric Stretcher. . . . . 1 - 24
Fixed Height Stretcher . . . . . 1 - 24
Trauma Stretcher. . . . . 1 - 25
Surgical Stretcher . . . . . 1 - 25
OB/GYN Stretcher . . . . . 1 - 25
Model Identification . . . . . 1 - 25
General Operation. . . . . 1 - 26

Siderail Operation . . . . . 1 - 26
Raising the Siderail (PC-100/PC-200) . . . . . 1 - 26
Raising the Siderail (PC-300/PC-350/PC-400/PC-450/PC-500/PC-550) . . . . . 1 - 26
Lowering the Siderail (PC-100/PC-200) . . . . . 1 - 26
Lowering the Siderail (PC-300/PC-350/PC-400/PC-450/PC-500/PC-550) . . . . . 1 - 26
Fixed Height/Procedural/Trauma/OB/GYN Stretcher Back Articulation . . . 1 - 27
Raising the Back Section . . . . . 1 - 27
Lowering the Back Section . . . . . 1 - 27
Electric Stretcher Back Articulation . . . . . 1 - 27
Patient Controls . . . . . 1 - 27
Raising the Back Section Using the Patient Controls . . . . . 1 - 28
Lowering the Back Section Using the Patient Controls . . . . . 1 - 28
Nurse Controls . . . . . 1 - 28
Raising the Back Section Using the Nurse Controls . . . . . 1 - 29
Lowering the Back Section Using the Nurse Controls . . . . . 1 - 29
Electric Stretcher Manual Back Articulation . . . . . 1 - 29
Raising the Back Section Using the Manual Crank Handle . . . . . 1 - 29
Lowering the Back Section Using the Manual Crank Handle . . . . . 1 - 29
Surgical Stretcher Back Articulation with PACU Extenders in Position (Extenders Around the Head Section) . . . . . 1 - 30
PACU Extender Position—Raising the Back Section . . . . . 1 - 30
PACU Extender Position—Lowering the Back Section . . . . . 1 - 30
Surgical Stretcher Back Articulation with PACU Extenders in the Armboard Position (or When Removed from the Stretcher) . . . . . 1 - 30
PACU Extenders in the Armboard Position (or When Removed from the Stretcher)—Raising the Back Section . . . . 1 - 30
PACU Extenders in the Armboard Position (or When Removed from the Stretcher)—Lowering the Back Section . . 1 - 31
Procedural/Surgical Stretcher Thigh Articulation . . . . . 1 - 31
Raising or Lowering the Thigh Section . . . . . 1 - 31

Electric Stretcher Thigh Articulation . . . . . 1 - 31
Raising the Thigh Section Using the Patient Controls . . . . . 1 - 31
Lowering the Thigh Section Using the Patient Controls . . . . . 1 - 32
Electric Stretcher Manual Thigh Articulation . . . . . 1 - 32
Raising the Thigh Section Using the Manual Crank Handle . . . . . 1 - 32
Lowering the Thigh Section Using the Manual Crank Handle . . . . . 1 - 32
Surgical Stretcher Articulating Head Section Positioning . . . . . 1 - 32
Manual Foot . . . . . 1 - 33
Hilow Operation . . . . . 1 - 33
Trendelenburg/Reverse Trendelenburg Operation . . . . . 1 - 33
Trendelenburg . . . . . 1 - 33
Reverse Trendelenburg . . . . . 1 - 34
Quick Trendelenburg . . . . . 1 - 34
Leveling The Sleep Surface . . . . . 1 - 34
Central Brake and Steer . . . . . 1 - 34
Steer . . . . . 1 - 34
Brake . . . . . 1 - 34
Electric Stretcher CPR Release . . . . . 1 - 35
Power Cord Storage . . . . . 1 - 35
Trauma Stretcher Cassette Lift Mechanism (Handle) . . . . . 1 - 35
Activating . . . . . 1 - 35
Storing . . . . . 1 - 35
Trauma Stretcher—Restraint . . . . . 1 - 36
Restraining the Patient's Wrist . . . . . 1 - 36
Restraining the Patient's Ankle . . . . . 1 - 36
OB/GYN Stretcher Patient Grip Handle . . . . . 1 - 36
Raising the Patient Grip Handle . . . . . 1 - 36
Lowering the Patient Grip Handle . . . . . 1 - 37

OB/GYN Stretcher Foot Support . . . . . 1 - 37
Telescoping Upward or Downward . . . . . 1 - 37
Telescoping Outward or Inward . . . . . 1 - 37
OB/GYN Stretcher Placenta Basin . . . . . 1 - 38
Removing the Placenta Basin . . . . . 1 - 38
Replacing the Placenta Basin . . . . . 1 - 38
OB/GYN Stretcher Gliding Litter. . . . . 1 - 38
Exam Position . . . . . 1 - 39
Procedural Position . . . . . 1 - 39
OB/GYN Stretcher Store-Away Foot Section . . . . . 1 - 39
Storing. . . . . 1 - 39
Replacing . . . . . 1 - 40
OB/GYN Stretcher Integrated Fiber Optic Exam Light . . . . . 1 - 40
Operating . . . . . 1 - 40
Storing. . . . . 1 - 40
Safety Tips . . . . . 1 - 41
Warning and Caution Labels . . . . . 1 - 48

NOTES:

Purpose

This manual provides requirements for TranStar® PC-100/PC-200/PC-300/ PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/SG-500/OB-450/OB-550/ EL-550 Series Stretcher normal operation and maintenance. It also includes parts lists (in chapter 5) for ordering replacement components.

Audience

This manual is intended for use by facility-authorized personnel only. Failure to observe this restriction could result in severe injury to people and serious damage to equipment.

Organization

This manual contains seven chapters.

Chapter 1: Introduction

Chapter 1 provides a brief description of this service manual and a product overview.

Chapter 2: Troubleshooting Procedures

Chapter 2 contains repair analysis procedures. Use these procedures to gather information, identify the maintenance need, and verify the effectiveness of the repair.

Chapter 3: Theory of Operation

Chapter 3 contains the hardware theory of operation of the TranStar® Electric Stretcher. It also includes the wiring diagrams and a schematic for the TranStar® Electric Stretcher.

Chapter 4: Removal, Replacement, and Adjustment Procedures

Chapter 4 contains the detailed maintenance procedures determined necessary in chapter 2.

Chapter 5: Parts List

Chapter 5 contains the warranty, part-ordering procedure, and illustrated parts lists.

Chapter 6: General Procedures

Chapter 6 describes cleaning, preventive maintenance, and other general procedures.

Chapter 7: Accessories

Chapter 7 provides a list of additional products which can be used in conjunction with the TranStar® PC-100/PC-200/PC-300/PC-350/PC-400/ PC-450/PC-500/PC-550/TR-500/SG-500/OB-450/OB-550/EL-550 Series Stretcher, with installation procedures for some of these accessories.

Typographical Conventions

This manual contains different typefaces and icons designed to improve readability and increase understanding of its content. Note the following examples:

- Standard text—used for regular information.
- **Boldface text**—emphasizes a word or phrase.
- **NOTE:**—sets apart special information or important instruction clarification.
- The symbol below highlights a WARNING or CAUTION:

Figure 1-1. Warning and Caution Symbol

  - A WARNING identifies situations or actions that may affect patient or user safety. Disregarding a warning could result in patient or user injury.
  - A CAUTION points out special procedures or precautions that personnel must follow to avoid equipment damage.
- The symbol below highlights a CAUTION HAZARD WARNING:

Figure 1-2. Caught Hazard Warning

- The symbol below highlights a CHEMICAL HAZARD WARNING:

Figure 1-3. Chemical Hazard Warning

- The symbol below highlights an ELECTRICAL SHOCK HAZARD WARNING:

Figure 1-4. Electrical Shock Hazard Warning

Introduction

Operating Precautions

Before operating the stretcher, be sure that you have read and understand in detail the contents of this manual. It is important that you read and strictly adhere to the safety information contained in this manual and the applicable user manuals.

Stretcher Positions

The TranStar® PC-100/PC-200 has only a pneumatic-assisted back section. The TranStar® PC-300/PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/ SG-500/OB-450/OB-550/ EL-550 Series Stretchers have four sections: back, seat, thigh, and foot (see figure 1-5 on page 1-10). On some of the TranStar® Series Stretchers, the thigh section is an option. The TranStar® Surgical Stretcher has an additional articulating head section (see figure 1-11 on page 1-16). Typical stretcher positions are shown in figure 1-6 through figure 1-10.

Figure 1-5. Stretcher Location Description

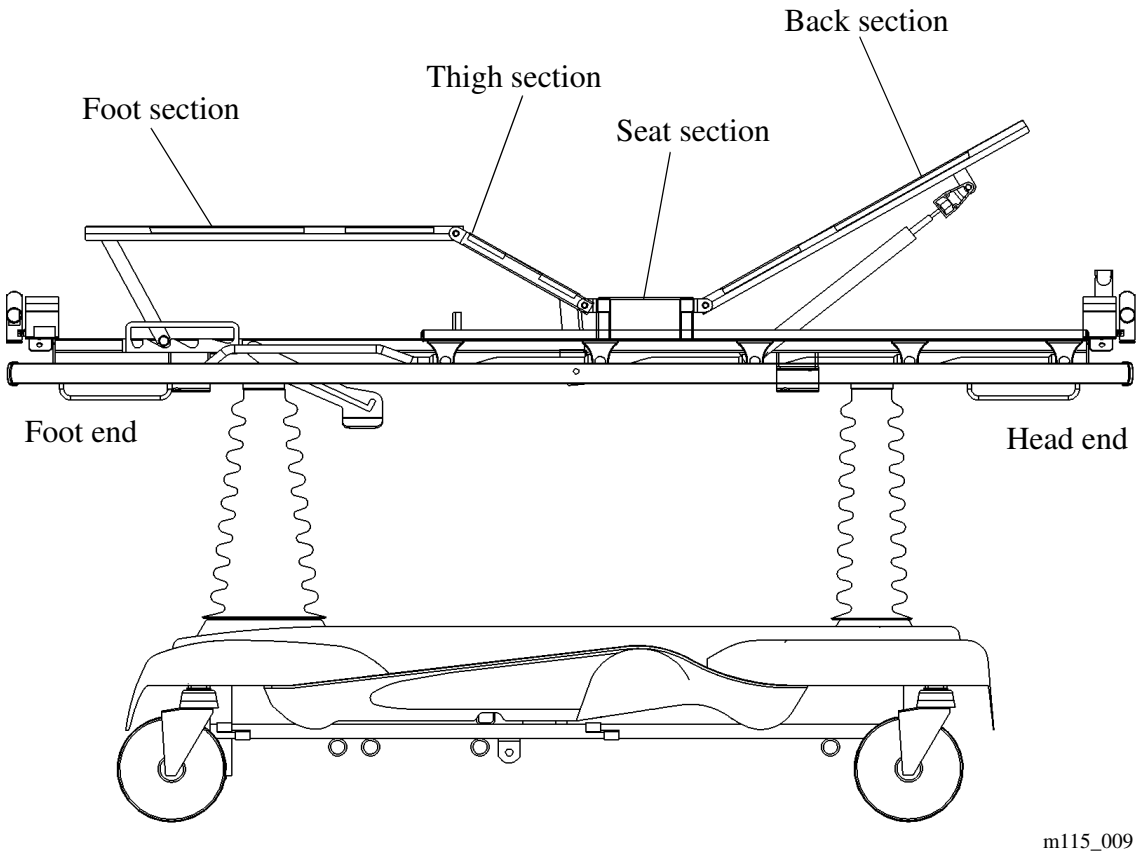
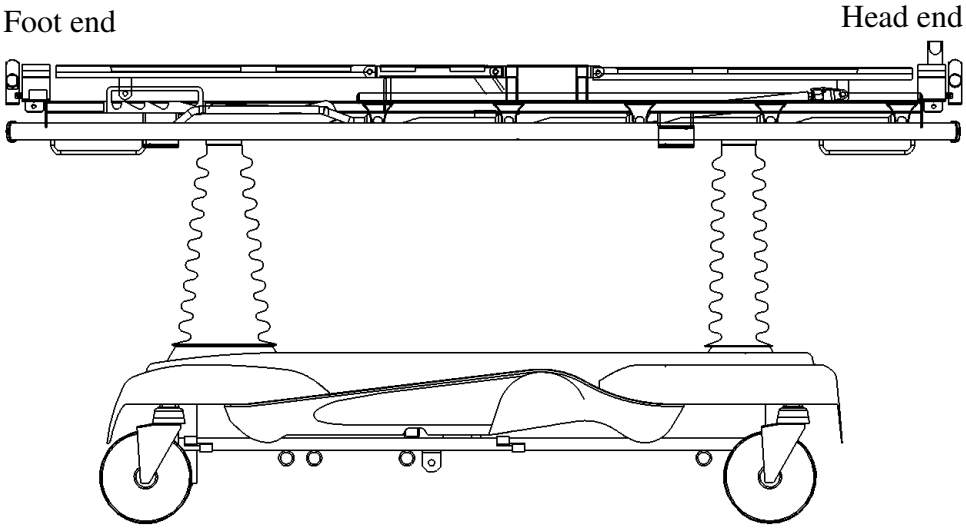
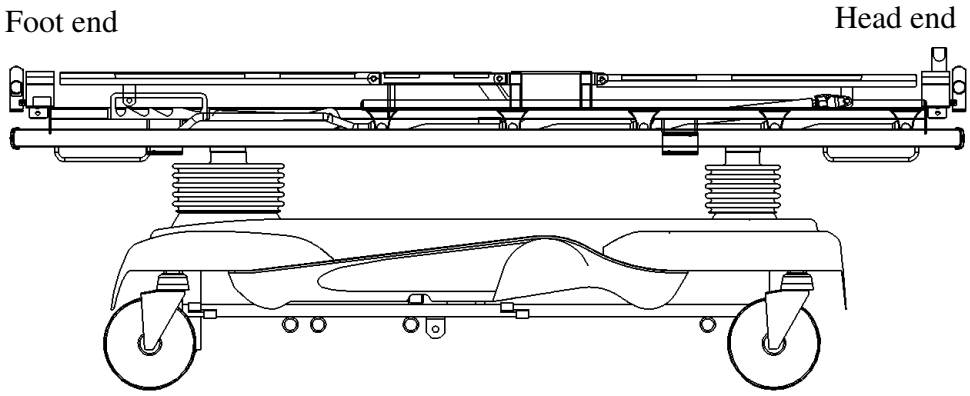


Figure 1-6. Hilow Positions

High position



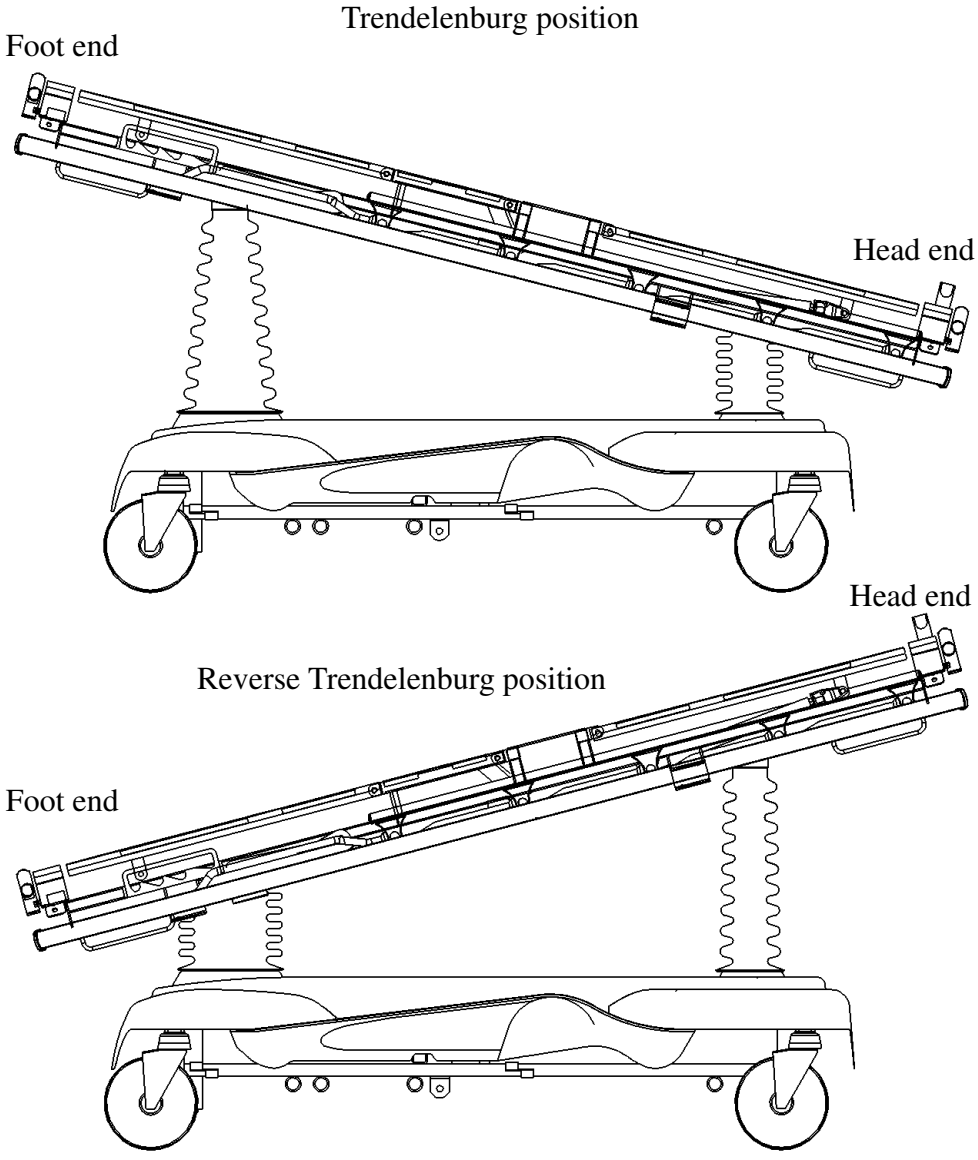
Low position



NOTE: This figure does not apply to the fixed height stretcher.

m115_021

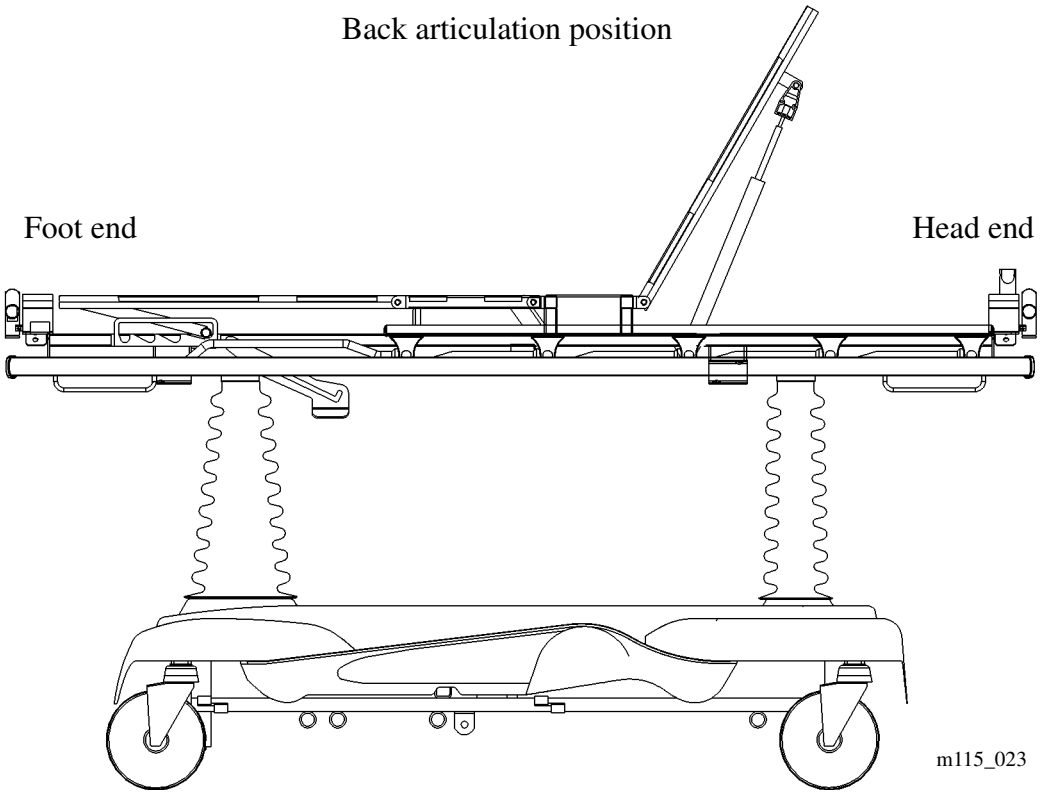
Figure 1-7. Trendelenburg/Reverse Trendelenburg Positions

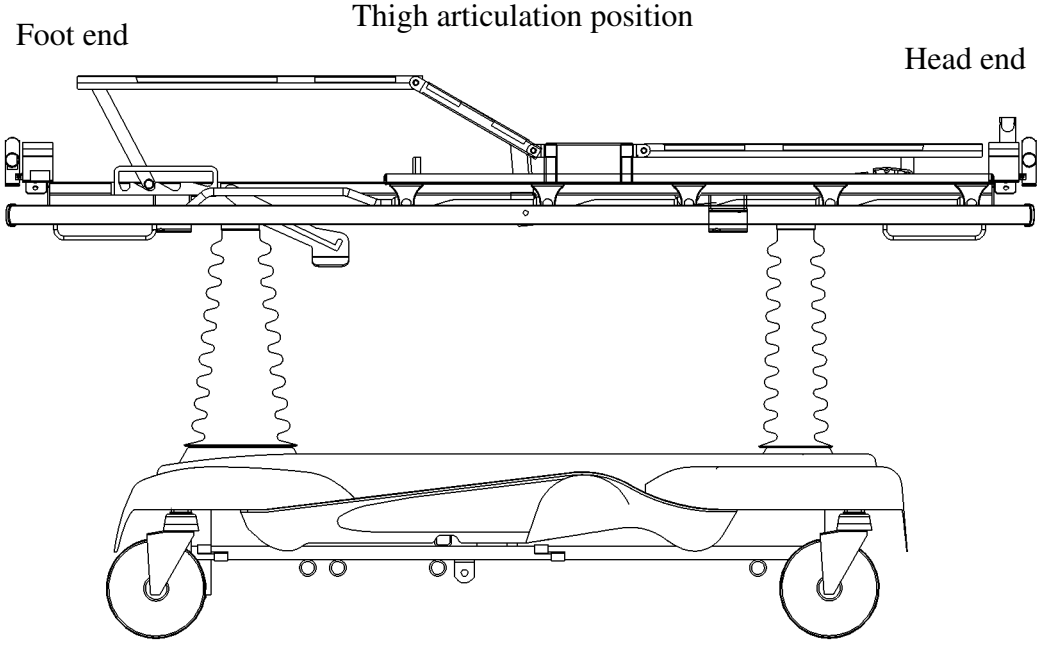


NOTE: This figure does not apply to the fixed height stretcher.

m115_022

Figure 1-8. Back and Thigh Section Articulation





NOTE: Procedural stretcher shown.

m115_024

Figure 1-9. Electric Stretcher Back Section/Thigh Section Articulation

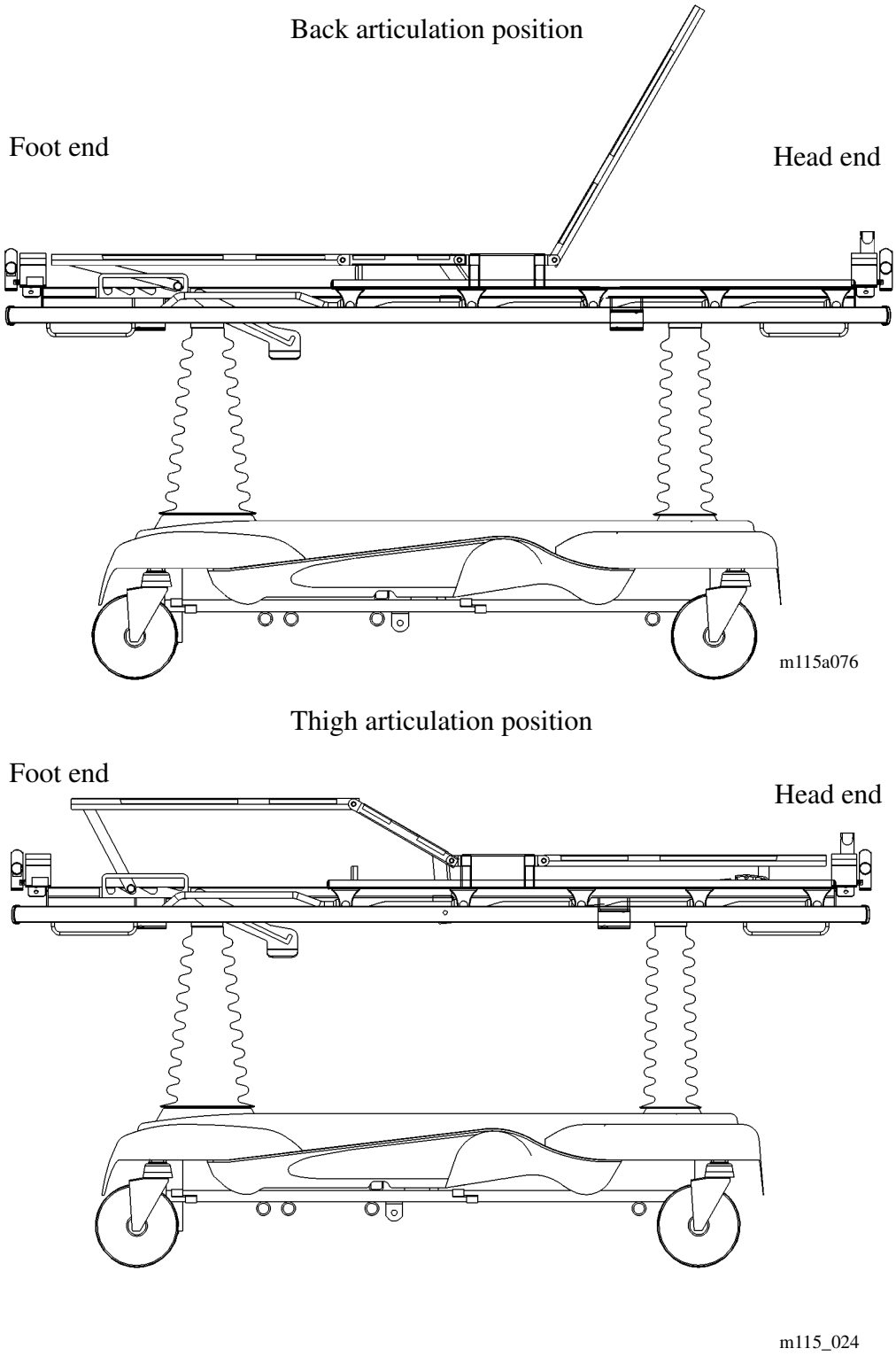


Figure 1-10. Fixed Height Back Section/Foot Section Positions

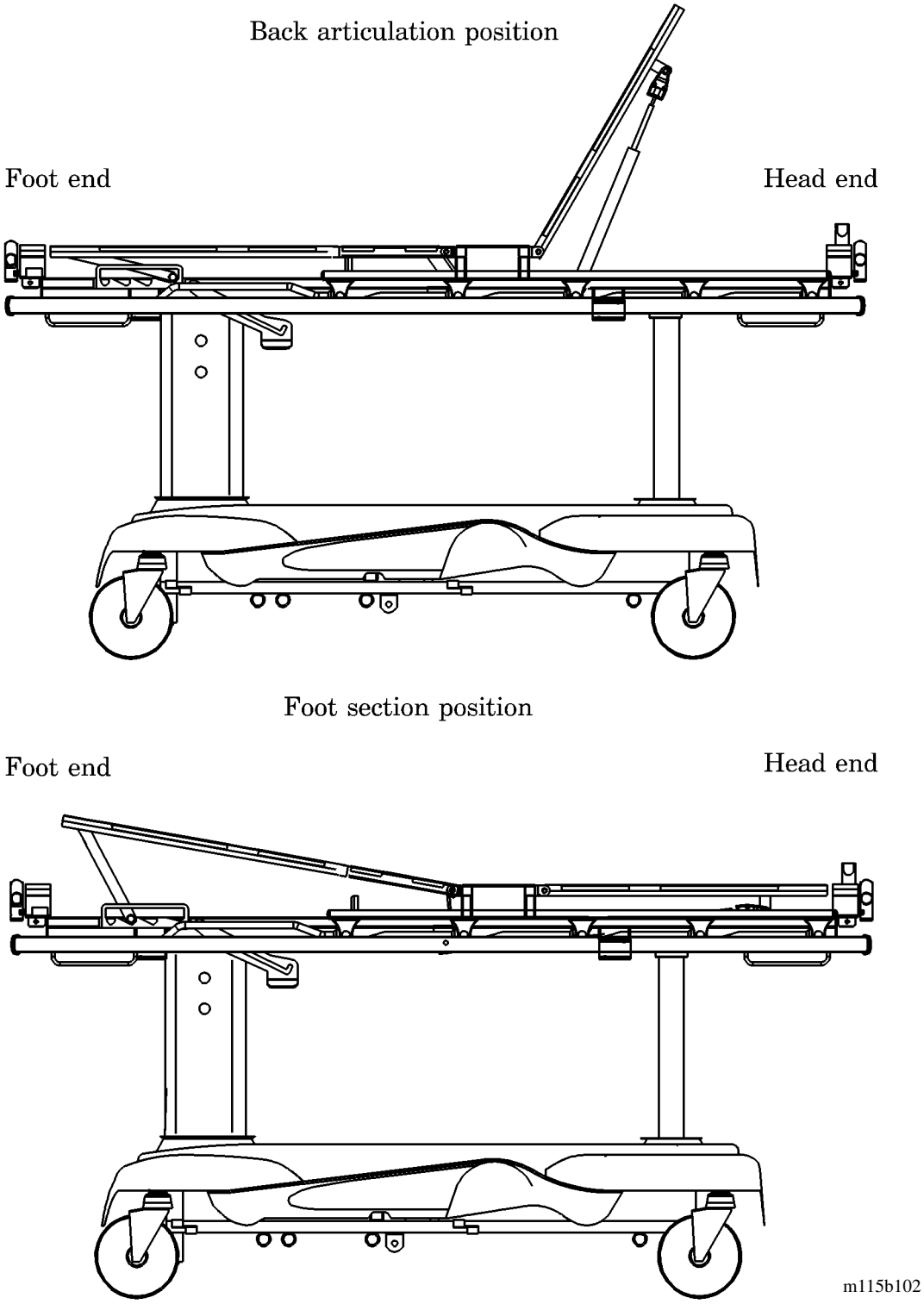
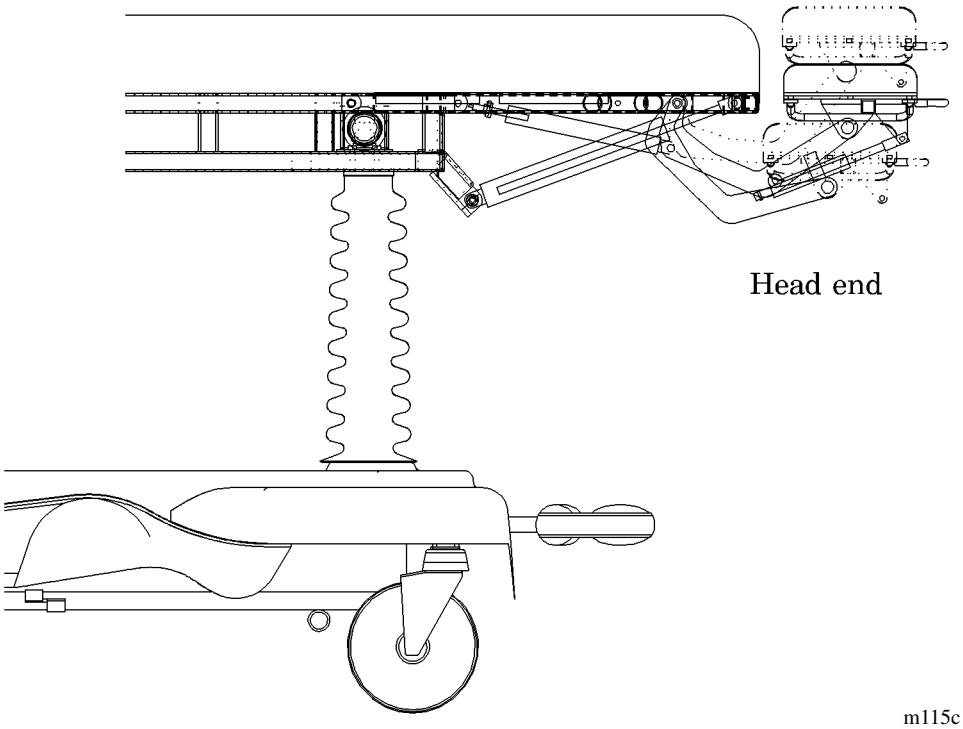


Figure 1-11. Surgical Stretcher Articulating Head Section Articulation



Specifications

Physical Description

See table 1-1 on page 1-17 for TranStar® Series Stretcher specifications.

Table 1-1. Specifications

Feature	Dimension
Overall length	
standard	83" (2108 mm)
surgical	92" (2337 mm)
OB/GYN	80.5" (2045 mm)
Overall width (siderails up)	
standard	32" (813 mm)
wide/electric	36" (914 mm)
OB/GYN	35.5" (902 mm)
Upper frame width (siderails stored)	
standard	26.5" (673 mm)
wide/electric	30.25" (768.4 mm)
OB/GYN	31" (787 mm)
Overall siderail length	
standard	47" (1194 mm)
OB/GYN	37" (940 mm)
Siderail height above sleep surface	
standard	14" (356 mm)
OB/GYN	13" (330 mm)
Mattress size	
standard	26" x 75" (660 mm x 1905 mm)
wide/electric	30" x 75" (762 mm x 1905 mm)
surgical	26" x 78" (660 mm x 1981 mm)
OB/GYN	30" x 76.5" (762 mm x 1943 mm)
Mattress thickness	3" (76 mm), 4" (102 mm), or 5" (127 mm)
Hydraulic cylinder specifications:	
Rated pressure	1000 psi (6895 kPa)
Burst pressure	5000 psi (34474 kPa)

(Continued on next page.)

Table 1-1. Specifications *(cont'd.)*

Feature	Dimension
Sleep surface height, low position fixed height PC-100/PC-200 procedural/electric/surgical OB/GYN trauma	 28" (711 mm) 23" (584 mm) 21.5" (546 mm) 24.25" (616 mm) 25.625" (650.9 mm)
Sleep surface height, high position fixed height PC-100/PC-200/procedural/electric surgical OB/GYN trauma	 32" (813 mm) 35" (889 mm) 34" (864 mm) 38" (965 mm) 38.5" (978 mm)
Caster size standard surgical	 8" (203 mm) 6" (152 mm)
Floor-to-base clearance	3.5" (89 mm)
Floor-to-hydraulic cylinder clearance	2" (51 mm)
Base shroud width	28" (711 mm)
Maximum Trendelenburg/Reverse Trendelenburg	18°
Maximum back incline	90°
Maximum thigh section incline (procedural/electric/surgical)	25°
Maximum foot section incline (trauma)	90°
Maximum foot support incline/rotation (OB/GYN)	70° incline 40° outward rotation
Stretcher mass fixed height procedural electric surgical OB/GYN trauma	 195-230 lb (88-104 kg) 225-260 lb (102-118 kg) 305-335 lb (138-152 kg) 260-290 lb (118-131 kg) 286-332 lb (130-151 kg) 255-290 lb (116-131 kg)
Maximum safe working load	500 lb (227 kg)

Procedural/Trauma/Fixed Height/OB/GYN Stretcher Back Section Inclination

The procedural/trauma/fixed height/OB/GYN stretcher is mechanized such that the attendant can raise or lower the back section by squeezing the release handle located under the back section. The back section can be elevated from 0° to 90°.

Surgical Stretcher Back Section Inclination

The surgical stretcher back section can be articulated in either the PACU extender position (extenders around the head section), or in the armboard position (extenders in the armboard position), or when the extenders are removed from the stretcher. The attendant can raise or lower the back section when the extenders are in the armboard position (or when removed from the stretcher) by squeezing the release handle located at the top of the back section on either side. Also, if the extenders are in the PACU extender position, the attendant can raise or lower the back section by squeezing the release handle located at the end of either PACU extender. The back section can be elevated from 0° to 90°.

Electric Stretcher Back Section Inclination

The electric stretcher can be raised or lowered electronically or mechanically. The stretcher is equipped with electronic control panels located on each siderail and the foot end of the stretcher. The attendant can raise or lower the back section by pressing the appropriate switch. The siderail controls can elevate the back section from 0° to 65°. The foot end control can elevate the back section from 0° to 90°. The back section can also be raised or lowered by rotating the left crank handle at the foot end of the stretcher.

Procedural/Surgical Stretcher Thigh Section Inclination

The procedural stretcher is mechanized such that the attendant can raise or lower the thigh section by cranking the handle at the foot end of the stretcher. The thigh section can be elevated from 0° to 25°.

Electric Stretcher Thigh Section Inclination

The electric stretcher can be raised or lowered electronically or mechanically. The stretcher is equipped with electronic control panels located on each siderail such that a patient or attendant can raise or lower the thigh section by pressing the appropriate switch. The thigh section can be elevated from 0° to 25°. The thigh section can also be raised or lowered by rotating the right crank handle at the foot end of the stretcher.

Procedural/Electric/Fixed Height/Surgical Stretcher Foot Section Inclination

The stretcher is mechanized such that the attendant can raise or lower the foot section by grasping the foot end of the sleep surface and lifting up on the foot section. The foot section can be positioned at three different heights. This does not apply to the trauma stretcher.

Trauma Stretcher Foot Section Inclination

The stretcher is mechanized such that the attendant can raise or lower the foot section by grasping the foot end of the sleep surface and lifting up on the foot section. The attendant will need to support the foot section at all times when access to the lower surface is required.

Surgical Stretcher Articulating Head Section Articulation

The articulating head section uses pneumatic assist to allow it to pivot up and down and tilt front to back independently. The attendant can do this by depressing the thumb push lever on either side of the head section. Then manually position the head section upwards or downwards, tilt forward or backwards.

Surgical Stretcher—Surgical Rail

The stretcher is equipped with a surgical rail located at either side of the back section. This rail is used to attach accessories to the stretcher such as PACU extenders/armboards, gas delivery/drape support device, or surgical hand table.

OB/GYN Stretcher Store-Away Foot Section

The stretcher is mechanized such that the attendant can store-away the foot section by grasping the foot section handle and squeezing the release lever located underneath the foot section. The attendant then raises, and angles the foot section downward, sliding it toward the head end of the stretcher. The foot section is stored underneath the gliding litter.

OB/GYN Stretcher Foot Supports

The stretcher is mechanized such that the attendant can raise or lower the integrated foot supports by depressing the push lever located underneath the contoured heel section of the foot support. The attendant can also position the patient's legs rotating inward and outward by squeezing the release handle located on the end section of the foot support.

OB/GYN Stretcher Gliding Litter

The stretcher is mechanized such that the attendant can position the patient by grasping the foot supports, squeezing both release handles, then sliding the carriage, forward and backward, to the desired exam or procedural position without *"scooting"* the patient.

NOTE:
The foot section must be removed or in the stored position in order to activate the gliding litter.

Hilow

The stretcher is mechanized such that the attendant can raise or lower the sleep surface by pressing the appropriate pedals located on either side and/or the foot end of the stretcher. The stretcher is equipped with two pressure compensating hydraulic cylinders to ensure that the stretcher lowers evenly, with uneven loads. This does not apply to the fixed height stretcher.

Surgical Stretcher—Surgical Brake/Steer Pedal

This stretcher is equipped with a unique brake/steer pedal at the head end of the stretcher. It can rotate off the floor providing more room for the caregiver and equipment. If the brake/steer pedal was rotated and engaged down toward the patient's left side, it would be in the brake position. If it were rotated and engaged toward the patient's right side, it would be in the steer position. Brake and Steer labels are affixed to the brake/steer pedal to indicate this.

Steering

The stretcher is mechanized such that the attendant can set the brake/steer options from either end of the stretcher. The brake/steer pedals are color-coded for rapid identification. Two steering options are available for most stretchers: corner steer or the Steering Plus™ Steering System. With corner steer, the patient left foot caster provides the steering capability. With the Steering Plus™ Steering System, a wheel located in the center of the stretcher provides steering.

Brake

The stretcher is mechanized such that the attendant can set the brake from both ends of the stretcher. All four casters provide braking for the stretcher.

Trendelenburg/Reverse Trendelenburg

The stretcher is mechanized to attain the Trendelenburg/Reverse Trendelenburg by pressing the proper foot pedals located on either side and/or at the foot end of the stretcher. Quick Trendelenburg can be achieved by grasping the foot end of the stretcher and pulling up. A maximum of 18° Trendelenburg/Reverse Trendelenburg can be achieved with the stretcher raised to the high position. The fixed height stretcher does not have Trendelenburg/Reverse Trendelenburg capability.

Siderails

The stretcher is equipped with full length siderails. The siderail opening can be located at the foot or head end of the stretcher for the procedural, fixed height, electric, or trauma stretchers. The siderail opening for the surgical stretcher is located at the foot end only. The OB/GYN stretcher is equipped with three-quarter length siderails, and the siderail opening is located at the foot end only. The siderails retract and store within the confines of the stretcher, and can be moved from the stored position to the upright position in one motion.

The siderails should always be in a full upright position and latched when a patient is unattended. When raising the siderails, an audible *click* will indicate that the siderail is completely raised and locked in place.

Siderails are intended to be a reminder, **not a patient retaining device.** Appropriate medical personnel should determine the level of restraint necessary to ensure a patient will remain safely in bed. Consult the restraint manufacturer's instruction for use to verify the correct application of each restraining device.

Bumpers

The stretcher is equipped with non-marring, rolling, disk bumpers at each corner and a non-marring bumper running the length of each side, effective whether the siderails are raised or stored.

OB/GYN Stretcher Headboard

The removable headboard assembly mounts in headboard sockets located at the head end of the stretcher.

Mattress Sleep Surface

The procedural, electric, fixed height, and surgical stretchers are equipped with either a radiolucent or a metal sleep surface. The trauma stretcher is only equipped with a radiolucent sleep surface. The OB/GYN stretcher is only equipped with a hard pan non-radiolucent sleep surface. Velcro®[1] secures the mattress to the sleep surface.

Procedural/Fixed Height/Electric/Trauma Stretcher IV Pole Accommodation

There are four locations to install portable IV poles and two locations for permanently installed IV poles. Permanent IV poles can be installed at the foot and head ends of the stretcher. The permanent IV pole stores across the head or foot end of the stretcher when not in use.

Surgical Stretcher IV Pole Accommodation

There are two locations to install portable IV poles and one location for a permanently installed IV pole. The permanent IV pole is installed at the patient left corner of the foot end of the stretcher. The permanent IV pole stores across the foot end of the stretcher when not in use.

OB/GYN Stretcher IV Pole Accommodation

There are two locations to install portable IV poles and one location for a permanently installed IV pole. The permanent IV pole is installed at the patient right corner of the head end of the stretcher. The permanent IV pole stores across the head end of the stretcher when not in use.

Surgical Stretcher Head Section Cushions

The stretcher has two cushion styles available: a one-piece flat cushion or a two-piece combination flat/concave cushion set. Velcro® secures the cushion to the head section.

Mattress Configuration

There are several mattress configurations available for the TranStar® Series Stretcher (see table 5-61 on page 5-170). The mattress for the procedural stretcher is available in both standard and wide widths. The mattress for the fixed height and trauma stretchers is available only in a standard width. The

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

mattress for the electric and OB/GYN stretchers is available only in a wide width. The mattress for the surgical stretcher is available only in the standard width, with a 3" (76 mm) extended length.

Electrical Description—Electric Stretcher

The power supply cord should be plugged into the respective 120V or 230V AC required source. Ensure that the cord is not frayed or does not become entangled in the wheels of the bed.

Regulations, Standards, and Codes

Procedural Stretcher

The TranStar® Procedural Stretcher is certified to the applicable requirements of IEC 601-1/EN60601-1 and IEC 601-2-38.

The CSA classification for the TranStar® Procedural Stretcher is per CSA - C22.2 No. 601.1-M90 and IEC 601-2-38.

The UL classification for the TranStar® Procedural Stretcher is per UL 2601-1 and IEC 601-2-38.

Electric Stretcher

The TranStar® Electric Stretcher is certified to the applicable requirements of IEC 601-1/EN60601-1 and IEC 601-2-38.

The CSA classification for the TranStar® Electric Stretcher is per CSA - C22.2 No. 601.1-M90 and IEC 601-2-38.

The UL classification for the TranStar® Electric Stretcher is per UL 2601-1 and IEC 601-2-38.

Fixed Height Stretcher

There is no VDE/CSA/UL classification/certification for the TranStar® Fixed Height Stretcher.

Trauma Stretcher

The TranStar® Trauma Stretcher is certified to the applicable requirements of IEC 601-1/EN60601-1 and IEC 601-2-38.

The CSA classification for the TranStar® Trauma Stretcher is per CSA - C22.2 No. 601.1-M90 and IEC 601-2-38.

The UL classification for the TranStar® Trauma Stretcher is per UL 2601-1 and IEC 601-2-38.

Surgical Stretcher

There is no VDE/CSA/UL classification/certification for the TranStar® Surgical Stretcher.

OB/GYN Stretcher

There is no VDE/CSA/UL classification/certification for the TranStar® OB/GYN Stretcher.

Model Identification

Table 1-2. Model Identification

Model Number	Description
K8000	TranStar® Procedural Stretcher
K8005	TranStar® PC-100/PC-200 Procedural Stretcher
K8010	TranStar® Surgical Stretcher
K8020	TranStar® Electric Stretcher
K8030	TranStar® Fixed Height Stretcher
K8040	TranStar® Trauma Stretcher
K8050	TranStar® OB/GYN Stretcher

General Operation

The TranStar® Fixed Height, Procedural, Surgical, Trauma, and OB/GYN Stretchers are mechanically operated stretchers. For the TranStar® Electric Stretcher, the back and thigh section can be raised and lowered electronically or mechanically. The following paragraphs contain the basic operation of these stretchers.

Siderail Operation

Raising the Siderail (PC-100/PC-200)

- Pull the siderail up until it locks into position.
- To ensure that the siderail is fully locked, attempt to push it down.

Raising the Siderail (PC-300/PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/SG-500/OB-450/OB-550/EL-550)

- Grasp the top of the siderail, and pull it out from under the sleep surface.
- Pull the siderail up until it locks into position.
- To ensure that it is fully locked, attempt to push the siderail down.

Lowering the Siderail (PC-100/PC-200)

- Lift up on the siderail release handle, and push down on the siderail.
- Release the handle
- Lower the siderail completely.

Lowering the Siderail (PC-300/PC-350/PC-400/PC-450/PC-500/PC-550/TR-500/SG-500/OB-450/OB-550/EL-550)

- Lift up on the siderail release handle, and push down on the siderail.
- Release the handle.
- Lower the siderail completely.
- Push the siderail toward the sleep surface until it stops.

Fixed Height/Procedural/Trauma/OB/GYN Stretcher Back Articulation

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

Raising the Back Section

- Squeeze the back release handle located under the back section of the stretcher.
- Lift up on the back section. When the desired position is reached, release the handle.

Lowering the Back Section

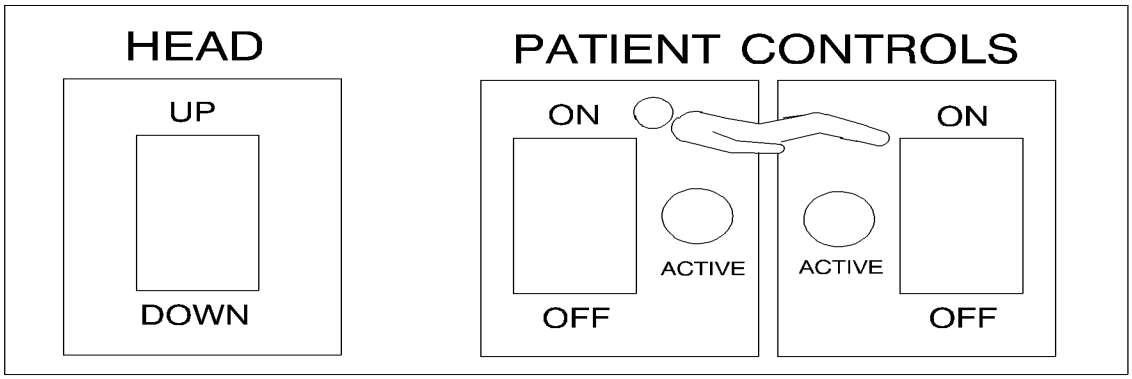
- Squeeze the back release handle located under the back section of the stretcher.
- Push down on the back section. When the desired position is reached, release the handle.

Electric Stretcher Back Articulation

Nurse Controls

The nurse control is located at the foot end of the stretcher. When the nurse control switches are in the OFF position, the patient controls located on the siderails are disabled for patient safety.

Figure 1-12. Nurse Controls



m115a063

Raising the Back Section Using the Nurse Controls

- On the nurse control put the head ON/OFF switch in the ON position.
- Push the head UP/DOWN switch to the UP position.
- Release the head UP/DOWN switch when the desired position is reached. The head section will lock in place.

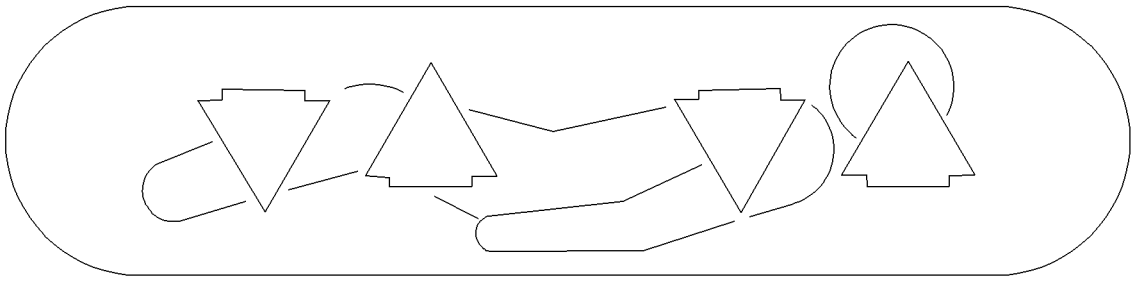
Lowering the Back Section Using the Nurse Controls

- On the nurse control put the head ON/OFF switch in the ON position.
- Push the head UP/DOWN switch to the DOWN position.
- Release the head UP/DOWN switch when the desired position is reached. The head section will lock in place.

Patient Controls

The patient controls are located on both siderails and allow the patient to raise and lower the head and knee sections.

Figure 1-13. Patient Controls



m115a062

Raising the Back Section Using the Patient Controls

- On the nurse control, make sure the head ON/OFF switch is in the ON position.
- Push the head up arrow on the patient control panel located on the siderail.
- Release the up arrow when the desired position is reached. The head section will lock in place.

Lowering the Back Section Using the Patient Controls

- On the nurse control, make sure the head ON/OFF switch is in the ON position.
- Push the head down arrow on the patient control panel located on the siderail.
- Release the head down arrow when the desired position is reached. The head section will lock in place.

Electric Stretcher Manual Back Articulation

The back section can be manually articulated by turning the left crank handle located at the foot end of the stretcher.

Raising the Back Section Using the Manual Crank Handle

- Pull the left crank handle from its stored position, and lock it into the cranking position.
- Turn the handle clockwise until the desired position is reached.
- Store the crank handle after use by rotating it in toward the head end of the stretcher.

Lowering the Back Section Using the Manual Crank Handle

- Pull the left crank handle from its stored position, and lock it into the cranking position.
- Turn the crank handle counterclockwise until the desired position is reached.
- Store the crank handle after use by rotating it in toward the head end of the stretcher.

Surgical Stretcher Back Articulation with PACU Extenders in Position (Extenders Around the Head Section)

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

PACU Extender Position—Raising the Back Section

- Squeeze the release handle located at the end of either PACU extender.
- Lift up on the back section. When the desired position is reached, release the handle.

PACU Extender Position—Lowering the Back Section

- Squeeze the release handle located at the end of either PACU extender.
- Push down on the back section. When the desired position is reached, release the handle.

Surgical Stretcher Back Articulation with PACU Extenders in the Armboard Position (or When Removed from the Stretcher)

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

PACU Extenders in the Armboard Position (or When Removed from the Stretcher)—Raising the Back Section

- Squeeze the back release handle located at the top of the back section on either side of the articulating head section (under the patient's shoulder region on the stretcher).
- Lift up on the back section. When the desired position is reached, release the handle.

PACU Extenders in the Armboard Position (or When Removed from the Stretcher)—Lowering the Back Section

- Squeeze the back release handle located at the top of the back section on either side of the articulating head section (under the patient's shoulder region on the stretcher).
- Push down on the back section. When the desired position is reached, release the handle.

Procedural/Surgical Stretcher Thigh Articulation

There are two thigh section options available: crank and stationary.

Raising or Lowering the Thigh Section

- Locate the thigh crank handle at the foot section of the stretcher.
- Pull the crank handle out from its stored position, and lock it into the cranking position.
- Turn the handle clockwise to raise or counterclockwise to lower the thigh section. Turn the handle until the desired position is reached.
- Store the handle after use by rotating it in toward the head end of the stretcher.

NOTE:
The PC-100/PC-200 procedural stretcher does not have thigh articulation capability.

Electric Stretcher Thigh Articulation

Raising the Thigh Section Using the Patient Controls

- On the nurse control, make sure the knee ON/OFF switch is in the ON position.
- Push the knee up arrow on the patient control panel located on the siderail.
- Release the knee up arrow when the desired position is reached. The head section will lock in place.

Lowering the Thigh Section Using the Patient Controls

- On the nurse control, make sure the knee ON/OFF switch is in the ON position.
- Push the knee down arrow on the patient control panel located on the siderail.
- Release the knee down arrow when the desired position is reached. The thigh section will lock in place.

Electric Stretcher Manual Thigh Articulation

The thigh section can be manually articulated by turning the right crank handle located at the foot end of the stretcher.

Raising the Thigh Section Using the Manual Crank Handle

- Pull the right crank handle from its stored position, and lock it into the cranking position.
- Turn the crank handle clockwise until the desired position is reached.
- Store the crank handle after use by rotating it in toward the head end of the stretcher.

Lowering the Thigh Section Using the Manual Crank Handle

- Pull the right crank handle from its stored position, and lock it into the cranking position.
- Turn the crank handle counterclockwise until the desired position is reached.
- Store the crank handle after use by rotating it in toward the head end of the stretcher.

Surgical Stretcher Articulating Head Section Positioning

- Press the push handle release on either side of the head section.
- Use your other hand to position the head section upward or downward, tilted forward or back. When the desired position is reached, release the push handle.

Manual Foot

This option is used for mild Trendelenburg positioning or head elevation if a patient's head is placed at the foot end of the stretcher.

NOTE:
The PC-100/PC-200 procedural stretcher and the trauma stretcher do not have foot articulation capability.

- Grasp the foot end of the sleep surface and pull up; the support bar will automatically lock into place. Two elevated positions are available.
- To lower the foot section, lift it and pull one end of the support bar up out of the detent. Lower the foot section while holding the support bar up.

Hilow Operation

The hilow pedals are located on either side of the stretcher. In addition, the TR-500 trauma stretcher and the PC-500 and PC-550 procedural stretchers have foot-end controls.

NOTE:
The fixed height stretcher does not have hilow capability.

- To raise the stretcher, press the foot pedal designated by an "UP" arrow, and pump it until the desired height is reached.
- To lower the stretcher, press the foot pedal designated by a "DOWN" arrow until the desired height is reached.
- To lower the stretcher from the foot end, press both Trendelenburg pedals at the same time until the desired height is reached.

Trendelenburg/Reverse Trendelenburg Operation

The Trendelenburg/Reverse Trendelenburg pedals are located on either side of the stretcher. In addition, the TR-500 trauma stretcher and the PC-500 and PC-550 procedural stretchers have foot-end controls. The stretcher must be in a raised position to achieve Trendelenburg/Reverse Trendelenburg positions.

NOTE:
The fixed height stretcher does not have Trendelenburg/Reverse Trendelenburg capability.

Trendelenburg

Press the foot pedal designated by a graphic showing the Trendelenburg position until the desired angle is reached.

Reverse Trendelenburg

Press the foot pedal designated by a graphic showing the Reverse Trendelenburg position until the desired angle is reached.

Quick Trendelenburg

Grasp the permanent push handle located at the foot end, and pull up on the stretcher until the desired angle is reached.

Leveling The Sleep Surface

- If the stretcher is in the Trendelenburg position, press the Reverse Trendelenburg pedal until the stretcher is level.
- If the stretcher is in the Reverse Trendelenburg position, press the Trendelenburg pedal until the stretcher is level.

Central Brake and Steer

There are two different steering systems available for the TranStar® Series Stretcher: corner steer and Steering Plus™ Steering System. Brake and steer pedals are located at the ends of the stretcher. All four casters are the same when the stretcher package has the Steering Plus™ Steering System. If the stretcher does not have Steering Plus™ Steering System, the patient's left foot-end caster locks to provide steering capability. For best results, ensure that the steer caster is in a trailing position, and push the stretcher from the head end.

Steer

- Press down on the green **steer** pedal. If the stretcher is equipped with foot-end hydraulic controls, to engage the steer feature, lift up on the half pedal at the foot end of the stretcher.
- To release steering, press the orange or grey **brake** pedal until the pedal is parallel to the floor.

Brake

- Press down on the orange or grey **brake** pedal. All four casters will lock into place.
- To release the brake, press the green **steer** pedal. If the stretcher is equipped with foot-end hydraulic controls, lift up on the half pedal at the foot end of the stretcher until the pedal is parallel to the floor.

Electric Stretcher CPR Release

To activate the CPR release, pull and hold the CPR release handle until the back section is in the full flat position.

Power Cord Storage

Store the power cord at the head end of the stretcher for patient transport.

- Unplug the unit from its power source.
- Wrap the cord around the storage hook located at the head end of the stretcher.

Trauma Stretcher Cassette Lift Mechanism (Handle)

The Trauma Stretcher Cassette Lift Handle is located on either side of the stretcher. Each handle is independent of the other. When activated, it raises the cassette support surface up to a position that places the x-ray cassette against the bottom surface of the radiolucent sleep surface.

Activating

- Place an x-ray cassette on the cassette support surface.
- Pull the handle from the stored position.
- Rotate the handle 180° to lift the cassette.

Storing

- Rotate the handle back 180° to lower the cassette.

NOTE:
The handles are independent of each other. The same handle that was activated to raise the surface, must be the handle used to lower the surface.

- Store the handle and remove the x-ray cassette.

Trauma Stretcher—Restraint

WARNING:
Ensure that the restraint procedures are done correctly, using the Trauma Stretcher's specific restraint locations. Failure to do so could result in personal injury and equipment damage.

- Put the stretcher in the low position.
- Place the stretcher against a wall which has restraint hooks in place.
- Press the pedal to raise the stretcher until the bottom of the siderail (the bumper) is secure against the restraint hooks.

Restraining the Patient's Wrist

- Locate the cut-out in the foot panel on either side of the stretcher.
- Secure the wrist to the foot deck weldment.

Restraining the Patient's Ankle

- Locate the ankle restraint label on the upper frame weldment.
- Secure the ankle to the area specified by the label.

OB/GYN Stretcher Patient Grip Handle

The patient grip handle is positioned on the siderail end tube located at the foot end of the siderail.

WARNING:
Ensure that the patient grip handles are cleaned before each stretcher use. Failure to do so could result in cross-contamination between patients.

Raising the Patient Grip Handle

- Grasp the top of the siderail, and pull out from under the sleep surface.
- Pull the siderail up until it locks into position.

Lowering the Patient Grip Handle

- Lift on the siderail release handle, and push down on the siderail.
- Release the handle.
- After completely lowering the siderail, push the siderail toward the sleep surface until it stops.

Replacement patient grip handles are available from Hill-Rom in the event of damage from long term usage or improper cleaning.

OB/GYN Stretcher Foot Support

The foot supports include attached straps and built in contoured heel support which provide secure positioning of the feet. The foot supports can be manually rotated upward and outward in multiple positions.

Telescoping Upward or Downward

- Grasp the end section of the foot support.
- To raise the foot support, depress the push lever located underneath the contoured heel section of the foot support, and lift up on the foot support until the desired position is reached. Then release the push lever.
- To lower the foot support, depress the push lever located underneath the contoured heel section of the foot support, and press down on the foot support until the desired position is reached. Then release the push lever.

Telescoping Outward or Inward

- Grasp the end section of the foot support.
- To rotate the foot support outward, squeeze the release lever located on the end of the foot support, and rotate outward to the desired position. Then release the lever.
- To rotate the foot support inward, squeeze the release lever located on the end of the foot support, and rotate inward to the desired position. Then release the lever.

OB/GYN Stretcher Placenta Basin

The placenta basin is located below the foot section, between the foot supports and is easily removed for cleaning.

Removing the Placenta Basin

- Grasp the placenta basin on both sides.
- Lift upward and then pull outward to release the placenta basin from its secured position.
- Remove the placenta basin from the stretcher.

Replacing the Placenta Basin

- Grasp the placenta basin on both sides.
- Angle the placenta basin downward, and then slide the placenta basin straight into its secured position by hooking the back edge under the foot section shroud.
- Ensure that the placenta basin is stable by pressing downward.

OB/GYN Stretcher Gliding Litter

The gliding litter allows the attendant to position the patient by grasping the foot supports and gliding the carriage, forward and backward, to the desired exam or procedural position without “scooting” the patient.

NOTE:
The foot section must be removed or in the stored position before activating the gliding litter.

WARNING:
When the stretcher is occupied, ensure that the siderails are in the full upright and locked position before gliding the patient platform. Failure to do so could result in personal injury.

WARNING:
Ensure that the channel area is clear of all personnel and obstructions before gliding the patient platform. Failure to do so could result in personal injury and equipment damage.

WARNING:
Ensure that the patient platform is properly secured after gliding it forward or backward. Failure to do so could result in personal injury.

Exam Position

- Grasp both foot supports at the foot end of the stretcher.
- Squeeze both release levers, and pull the litter toward the foot end of the stretcher.
- Ensure that the litter is locked into the exam position.

Procedural Position

- Grasp both foot supports at the foot end of the stretcher.
- Squeeze both release levers, and push the litter toward the head end of the stretcher.
- Ensure that the litter is locked into the procedural position.

OB/GYN Stretcher Store-Away Foot Section

The foot section can be manually stored underneath the litter by squeezing the release handle and sliding the foot section underneath the litter.

WARNING:
Ensure that the store-away foot section is securely latched after being removed for cleaning, after being stored underneath the litter, and before the stretcher is occupied. Failure to do so could result in personal injury.

Storing

- Grasp the mattress stop located at the end of the foot section.
- Squeeze the release handle located underneath the foot section.
- Lift the mattress stop upward, and angle the back of the foot section downward toward the head end of the stretcher.
- Slide the foot section underneath the litter.

Replacing

- Grasp the mattress stop located at the end of the foot section.
- Pull the foot section toward the foot end of the stretcher until the foot section stops.
- Push the mattress stop downward rotating the rear of the foot section upward until it locks into position.
- Ensure that the foot section is secure by giving it a tug inward, outward, upward, and downward.

OB/GYN Stretcher Integrated Fiber Optic Exam Light

Operating

- Plug the unit into an appropriate power source.
- Turn the unit on. The on/off switch for the integrated fiber optic exam light is located on the power box under the head section of the stretcher.
- Position the light head. Rotate the light head to change the focus on the light.
- Drape the light for sterility.

WARNING:
Do not touch the illuminator box lamp immediately after use. Allow a minimum of 30 minutes to cool before replacing the lamp. Failure to do so could result in personal injury and equipment damage.

Storing

- Turn the power switch off.
- Position the light head so it is stored into the receptacle cavity on the right-hand side of the catch basin.

CAUTION:
Remove the integrated fiber optic exam light assembly before spray washing the stretcher. Failure to do so could result in equipment damage.

Safety Tips

WARNING:
Establish policies and procedures to train and educate your staff on the stretcher operation. Personnel should never have their entire body below the sleep surface and within the confines of the stretcher. If service personnel need to get under the stretcher, block up the hilow portion as an added precaution. Failure to do so could result in personal injury.

WARNING:
Set the brakes and leave the stretcher in the low position when the patient is unattended. Give the stretcher a solid tug to ensure that the brakes are set. Patients may use the stretcher for support when getting on or off the stretcher, and injuries could result if the brakes are not set. Use the steer mode only when patient transport is necessary.

WARNING:
Leave the siderails fully up and locked when the patient is unattended and when patient transport is necessary. When raising the siderails, ensure that you hear the click that signals the up and locked condition. Give the siderails a solid tug to ensure that they are firmly in position. Failure to do so could result in personal injury.

WARNING:
Only facility-authorized maintenance personnel should troubleshoot the TranStar® Series Stretcher. Troubleshooting by unauthorized personnel could result in personal injury and equipment damage.

WARNING:
Only facility-authorized maintenance personnel should perform preventive maintenance on the TranStar® Series Stretcher. Preventive maintenance performed by unauthorized personnel could result in personal injury and equipment damage.

WARNING:
Fuses F1 and F3 protect the stretcher's electrical system. For 120V AC power, a 6.30A UL 198G time-lag fuse should be used. For 230V AC, a 2.50A IEC 127.3 time-lag fuse should be used. Check the assembly drawing or schematic for the proper Hill-Rom fuse. Failure to use the proper fuse could result in personal injury.

WARNING:
Do not touch the lamp inside the illuminator box immediately after use. Allow a minimum of 30 minutes for the lamp to cool before replacing it. Failure to do so could result in personal injury and equipment damage.

WARNING:
Insufficient tightening will allow the calf supports to slip and lose their original position. Tighten the knob thoroughly. Failure to do so could result in personal injury and equipment damage.

WARNING:
Insufficient tightening will allow the calf support cradles to slip and lose their original position. Tighten the knob thoroughly. Failure to do so could result in personal injury and equipment damage.

WARNING:
The telescoping calf supports are intended to be used in the prescribed manner only. Failure to use this product as outlined could result in personal injury and equipment damage.

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

WARNING:
Ensure that the restraint procedures are done correctly, using the Trauma Stretcher's specific restraint locations. Failure to do so could result in personal injury and equipment damage.

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

WARNING:
Ensure that you use proper lifting methods. Failure to do so could result in personal injury and equipment damage. The weight of the lower frame will act as counterweight during the lifting process. One person can safely perform this procedure.

WARNING:
Ensure that you use the hydraulic cylinder with the correct part number for this product. The surgical stretcher uses a hydraulic cylinder that has a slower descent rate, but the replacement procedure is the same. Be sure to use the correct hydraulic cylinder. Failure to do so could result in personal injury.

WARNING:
Before you put the convertible footboard into the transport shelf position, remove the chart holder from the convertible footboard. Failure to do so could result in personal injury.

WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

WARNING:
Do not transport the stretcher with the superior wrist rest installed. Remove the superior wrist rest before you transport the stretcher. Failure to do so could result in personal injury and equipment damage.

WARNING:
Do not transport the stretcher with the temporal wrist rest installed. Remove the temporal wrist rest before you transport the stretcher. Failure to do so could result in personal injury and equipment damage.

WARNING:
Only facility-authorized personnel should install the gas delivery system. Installation by unauthorized personnel could result in personal injury and equipment damage.

WARNING:
Follow the product manufacturer's instructions when using an approved hospital disinfectant. Failure to do so could result in personal injury and equipment damage.

WARNING:
When the stretcher is occupied, ensure that the siderails are in the full upright and locked position before gliding the patient platform. Failure to do so could result in personal injury.

WARNING:
Ensure that the store-away foot section is securely latched after removal for cleaning, after being stored underneath the litter, and before the stretcher is occupied. Failure to do so could result in personal injury.

WARNING:
Ensure that the channel area is clear of all personnel and obstructions before gliding the patient platform. Failure to do so could result in personal injury and equipment damage.

WARNING:
Ensure that the patient platform is properly secured after gliding it forward or backward. Failure to do so could result in personal injury.

WARNING:
Do not use any steam cleaning device on the TranStar® Electric Stretcher. Personal injury and equipment damage could occur

WARNING:
Follow the product manufacturer's instructions. Failure to do so could result in equipment damage and personal injury.

WARNING:
Ensure that the patient grip handles are cleaned before each stretcher use. Failure to do so could result in cross-contamination between patients.

WARNING:
Adhere to the “Infection Control Policies and Procedures” outlined in the *Safety Coordinator Reference Guide*. Failure to do so could result in the spread of infection.

WARNING:
Do not place any other part of the body or any equipment on the PACU extender, or apply any unnecessary forces when it is in the armboard position. Damage to equipment and personal injury could occur.

CAUTION:
Ensure that the siderail is supported on both ends. Damage to the siderail bracket could occur if one end drops while the other end is positioned in the siderail bracket.

CAUTION:
Do not use a screwdriver to remove the top rail ratchet rivet. The upper pivot bracket is made of plastic. Damage to the bracket could occur.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

CAUTION:
The latch shoulder bolt has self-tapping threads. Ensure that you use a new latch shoulder bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

CAUTION:
Use care when removing the individual nurse control switch wires. Failure to do so could result in damage to the terminals.

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

CAUTION:
Be careful not to damage the base shroud when you remove or install the upper frame assembly.

CAUTION:
Do not attempt to switch the siderails on the electric stretcher. Equipment damage could occur.

CAUTION:
Use care when removing the cable attachment screws. Keep the CPR release cable assembly together to aid in the installation. Failure to do so could result in equipment damage.

CAUTION:
Leave the cylinder rod hold-down assembly in place until the hydraulic cylinder is secured to the frame assembly. Failure to do so could result in equipment damage.

CAUTION:
Do not rotate the gas spring rod with a clamping device. Damage to the rod can occur.

CAUTION:
Use proper draping and cleaning procedures. Failure to do so could result in mattress damage. Mattress damage caused by improper draping and/or cleaning procedures is not covered by warranty.

CAUTION:
Standard OB packs and paper drapes will not keep the sheets dry. Mattress damage could occur.

CAUTION:
Ensure that the power cord is not pulled too tight. Tension on the power cord connection could result in equipment damage.

CAUTION:
Do not spray the hydraulic cylinders. Equipment damage could occur.

CAUTION:
Do not use high-pressure spray. Equipment damage could occur.

CAUTION:
Do not use harsh cleansers or detergents such as scouring pads and heavy-duty grease removers, or solvents such as toluene, xylene, and acetone. Equipment damage could occur.

CAUTION:
Do not use silicone-based lubricants. Equipment damage could occur.

CAUTION:
Ensure that the bottom edge of the adhesive shroud is not lower than the bottom edge of the upper frame fixed weldment. Failure to do so could result in equipment damage.

CAUTION:
Remove the integrated fiber optic exam light assembly before spray washing the stretcher. Failure to do so could result in equipment damage.

CAUTION:
To help prevent component damage, ensure that your hands are clean, and **only** handle the P.C. board by its edges.

CAUTION:
When handling electronic components, wear an antistatic strap. Failure to do so could result in component damage.

CAUTION:
For shipping and storage, place the removed P.C. board in an antistatic protective bag. Failure to do so could result in component damage.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

SHOCK HAZARD:
Do not expose the unit to excessive moisture which would allow liquid to pool. Personal injury or equipment damage could occur.

Warning and Caution Labels

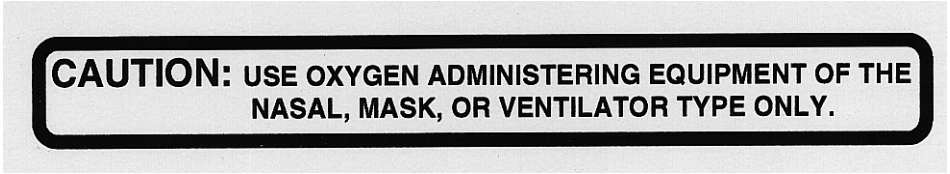
Figure 1-14. Warning and Caution Labels

m115b142

m115b141

m115a064

m115c169



m115a075

NOTES:

Chapter 2
Troubleshooting Procedures

2

Chapter Contents

Getting Started . . . . . 2 - 5
Initial Actions . . . . . 2 - 5
Procedural Stretcher Function Checks . . . . . 2 - 6
- Brake/Steer Function . . . . . 2 - 6
- Hilow Function . . . . . 2 - 7
- Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 9
- Siderail Function . . . . . 2 - 10
- Back Section Function . . . . . 2 - 10
- Thigh Section Function . . . . . 2 - 10
- Optional Push Handle Function . . . . . 2 - 10

Fixed Height Stretcher Function Checks . . . . . 2 - 10
- Brake/Steer Function . . . . . 2 - 10
- Siderail Function . . . . . 2 - 11
- Back Section Function . . . . . 2 - 12
- Optional Push Handle Function . . . . . 2 - 12

Trauma Stretcher Function Checks . . . . . 2 - 12
- Brake/Steer Function . . . . . 2 - 12
- Hilow Function . . . . . 2 - 13
- Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 15
- Siderail Function . . . . . 2 - 15
- Back Section Function . . . . . 2 - 15
- Foot Section Function . . . . . 2 - 16
- Cassette Lift Function . . . . . 2 - 16

Optional Push Handle Function . . . . . 2 - 16
Surgical Stretcher Function Checks . . . . . 2 - 16
Brake/Steer Function . . . . . 2 - 16
Hilow Function . . . . . 2 - 17
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 19
Siderail Function . . . . . 2 - 20
Back Section Function . . . . . 2 - 20
Headrest Function . . . . . 2 - 20
Thigh Section Function . . . . . 2 - 21
OB/GYN Stretcher Function Checks . . . . . 2 - 21
Brake/Steer Function . . . . . 2 - 21
Hilow Function . . . . . 2 - 22
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 24
Siderail Function . . . . . 2 - 24
Back Section Function . . . . . 2 - 24
Foot Support Function . . . . . 2 - 24
Foot Section Function . . . . . 2 - 25
Electric Stretcher Function Checks . . . . . 2 - 25
Brake/Steer Function . . . . . 2 - 25
Hilow Function . . . . . 2 - 26
Trendelenburg/Reverse Trendelenburg Function . . . . . 2 - 28
Siderail Function . . . . . 2 - 28
Patient Controls Function . . . . . 2 - 29
Nurse Controls Function . . . . . 2 - 30
Optional Push Handles Function . . . . . 2 - 31
Manual Head Section Articulation Function . . . . . 2 - 31
Manual Thigh Section Articulation Function . . . . . 2 - 32
CPR Release Function . . . . . 2 - 32
Final Actions . . . . . 2 - 32
Reduced Braking Ability . . . . . 2 - 33
Loss of the Steering Plus™ Steering System . . . . . 2 - 35

Loss of Corner Steer . . . . . 2 - 36
Stretcher Will Not Go Into the Neutral Position. . . . . 2 - 38
Reduced Pedal Pumping . . . . . 2 - 40
Stretcher Will Not Lower . . . . . 2 - 42
Siderail Malfunction . . . . . 2 - 44
Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Does Not Raise/Lower Correctly. . . . . 2 - 47
Procedural Stretcher Thigh Panel Will Not Raise/Lower. . . . . 2 - 48
OB/GYN Stretcher Foot Supports Malfunction . . . . . 2 - 49
OB/GYN Foot Section Does Not Release Correctly . . . . . 2 - 51
Push Handle Malfunction . . . . . 2 - 52
Electric Stretcher Back Panel Does Not Raise/Lower Electrically . . . . . 2 - 53
Electric Stretcher Thigh Panel Does Not Raise/Lower Electrically . . . . . 2 - 54
Manual Back Articulation. . . . . 2 - 55
Manual Thigh Articulation . . . . . 2 - 56
Trauma Stretcher Foot Section Malfunction . . . . . 2 - 57
Trauma Stretcher Cassette Lift Handle Malfunction . . . . . 2 - 58
Surgical Brake/Steer Pedal Malfunction. . . . . 2 - 59
Surgical Stretcher Back Section—Release Handle/Gas Spring Malfunction. . . . 2 - 60
Surgical Stretcher Articulating Headrest—Push Handle Release/Gas Spring Malfunction. . . . . 2 - 61

NOTES:

Getting Started

WARNING:
Only facility-authorized maintenance personnel should troubleshoot the TranStar® Series Stretcher. Troubleshooting by unauthorized personnel could result in personal injury and equipment damage.

Begin each procedure in this chapter with step 1. Follow the sequence outlined (each step assumes the previous steps are correct). Each step is the normal operational event of the product and can be confirmed by answering Y (yes) or N (no) to the statement. Your response will lead to another step in the procedure, a repair analysis procedure (RAP), or a component replacement. If more than one component is listed, replace them in the order given.

Start with **Initial Actions** to begin gathering information about the problem.

Perform the **Function Checks** to isolate or identify a problem and to verify repair after completing each corrective action (replacing or adjusting a part, seating a connector, etc.).

Perform **Final Actions** after the Function Checks to verify the repair.

If troubleshooting procedures do not isolate the problem, call Hill-Rom Technical Support at (800) 445-3720 for assistance.

Initial Actions

Use Initial Actions to gather information from operators concerning problems with the stretcher. Note symptoms or other information concerning the problem that the operator identifies. This information helps identify the probable cause.

1. Someone who can explain the problem is available.

   Yes ↓

   No → Go to “Procedural Stretcher Function Checks” on page 2-6, “Fixed Height Stretcher Function Checks” on page 2-10, “Trauma Stretcher Function Checks” on page 2-12, “Surgical Stretcher Function Checks” on page 2-16, “OB/GYN Stretcher Function Checks” on page 2-20, or “Electric Stretcher Function Checks” on page 2-25.

2. Ask that person to demonstrate or explain the problem. The problem can be duplicated.

   Yes **No**
   ↓ → Go to "Procedural Stretcher Function Checks" on page 2-6, "Fixed Height Stretcher Function Checks" on page 2-10, "Trauma Stretcher Function Checks" on page 2-12, "Surgical Stretcher Function Checks" on page 2-16, "OB/GYN Stretcher Function Checks" on page 2-20, or "Electric Stretcher Function Checks" on page 2-25.

3. The problem is a result of improper operator action.

   Yes **No**
   ↓ → Go to "Procedural Stretcher Function Checks" on page 2-6, "Fixed Height Stretcher Function Checks" on page 2-10, "Trauma Stretcher Function Checks" on page 2-12, "Surgical Stretcher Function Checks" on page 2-16, "OB/GYN Stretcher Function Checks" on page 2-20, or "Electric Stretcher Function Checks" on page 2-25.

4. Instruct the operators to refer to the procedures in the applicable *TranStar® Series Stretcher User Manual*. Perform the "Procedural Stretcher Function Checks" on page 2-6, "Fixed Height Stretcher Function Checks" on page 2-10, "Trauma Stretcher Function Checks" on page 2-12, "Surgical Stretcher Function Checks" on page 2-16, "OB/GYN Stretcher Function Checks" on page 2-20, or "Electric Stretcher Function Checks" on page 2-25 to ensure proper operation of the TranStar® Series Stretcher.

Procedural Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

   Yes **No**
   ↓ → Go to "Initial Actions" on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and none of the four casters roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. If the stretcher has the Steering Plus™ Steering System, go to step 5. If the stretcher has the corner steer option, go to step 7.

5. **Steering Plus™ Steering System only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

6. Go to step 8.

7. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient left foot end (patient right head end for Europe) caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

8. Put the stretcher in the neutral position. The pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Hilow Function

9. Put a 40 pound weight at the head end of the stretcher. Press the right-side pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

   Yes **No**
   ↓ → Go to RAP 2.5.

10. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

11. Press the left-side pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

12. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

13. Press the foot-end pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

14. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

15. Move the 40 pound weight to the foot end of the stretcher. Press the right-side pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

16. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

17. Press the left-side pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

18. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

19. Press the foot-end pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps (24 for the PC-100/PC-200 stretcher) are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

20. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

21. Remove the 40 pound weight, and continue to step 22.

Trendelenburg/Reverse Trendelenburg Function

22. Press any pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

23. Press any pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

Siderail Function

24. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

    Yes **No**
    ↓ → Go to RAP 2.7.

Back Section Function

25. Raise and lower the back panel. The back panel moves evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.8.

Thigh Section Function

26. Crank the knee Gatch. The knee Gatch rises and lowers evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.9.

Optional Push Handle Function

27. Raise the push handles. The push handles lock into position.

    Yes **No**
    ↓ → Go to RAP 2.12.

28. Lift up on the push handle release latch. The push handles drop into the stored position.

    Yes **No**
    ↓ → Go to RAP 2.12.

29. Go to “Final Actions” on page 2-32.

Fixed Height Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

    Yes **No**
    ↓ → Go to “Initial Actions” on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and all four casters do not roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. If the stretcher has the Steering Plus™ Steering System, go to step 5. If the stretcher has the corner steer option, go to step 7.

5. **Steering Plus™ Steering System only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

6. Go to step 8.

7. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient's left foot end caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

8. Put the stretcher in the neutral position. The pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Siderail Function

9. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

   Yes **No**
   ↓ → Go to RAP 2.7.

Back Section Function

10. Raise and lower the back panel. The back panel moves evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.8.

Optional Push Handle Function

11. Raise the push handles. The push handles lock into position.

    Yes **No**
    ↓ → Go to RAP 2.12.

12. Lift up on the push handle release latch. The push handles drop into the stored position.

    Yes **No**
    ↓ → Go to RAP 2.12.

13. Go to "Final Actions" on page 2-32.

Trauma Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

   Yes **No**
   ↓ → Go to "Initial Actions" on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and all four casters do not roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. If the stretcher has the Steering Plus™ Steering System, go to step 5. If the stretcher has the corner steer option, go to step 7.

5. **Steering Plus™ Steering System only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

6. Go to step 8.

7. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient left foot end caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

8. Put the stretcher in the neutral position. The pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Hilow Function

9. Put a 40 pound weight at the head end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

   Yes **No**
   ↓ → Go to RAP 2.5.

10. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

11. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

12. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

13. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

14. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

15. Move the 40 pound weight to the foot end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

16. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

17. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

18. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

19. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

20. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

21. Remove the 40 pound weight, and continue to step 22.

Trendelenburg/Reverse Trendelenburg Function

22. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

23. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

Siderail Function

24. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

    Yes **No**
    ↓ → Go to RAP 2.7.

Back Section Function

25. Raise and lower the back panel. The back panel moves evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.8.

Foot Section Function

26. Raise and lower the foot section. The foot section moves evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.17.

Cassette Lift Function

27. Pull the cassette lift handle, and rotate 180° to activate. The cassette lift handle functions properly.

    Yes **No**
    ↓ → Go to RAP 2.18.

Optional Push Handle Function

28. Raise the push handles. The push handles lock into position.

    Yes **No**
    ↓ → Go to RAP 2.12.

29. Lift up on the push handle release latch. The push handles drop into the stored position.

    Yes **No**
    ↓ → Go to RAP 2.12.

30. Go to "Final Actions" on page 2-32.

Surgical Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

   Yes **No**
   ↓ → Go to "Initial Actions" on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and all four casters do not roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. With the stretcher in the brake position, rotate the surgical brake/steer pedal at the head end. The pedal at the head end rotates freely without disengaging the stretcher out of the brake position.

   Yes **No**
   ↓ → Go to RAP 2.19.

5. If the stretcher has the Steering Plus™ Steering System option, go to step 5. If the stretcher has the corner steer option, go to step 7.

6. **Steering Plus™ Steering System option only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

7. Go to step 8.

8. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient left foot end caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

9. Put the stretcher in the neutral position. The foot end pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Hilow Function

10. Put a 40 pound weight at the head end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

11. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

12. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

13. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

14. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

15. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

16. Move the 40 pound weight to the foot end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

17. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

18. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

19. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

20. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

21. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

22. Remove the 40 pound weight, and continue to step 23.

Trendelenburg/Reverse Trendelenburg Function

23. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

24. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

Siderail Function

25. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

    Yes **No**
    ↓ → Go to RAP 2.7.

Back Section Function

26. Put the back section at its lowest position (if not already done).

27. Raise the back section panel to it highest position by engaging and disengaging (every 10-15 degrees) the **left** release handle located at the top of the back section (hand cut-out). The back section rises to its highest

position, the gas spring releases and locks throughout its full range of motion, and the release handle engages and disengages completely, returning to its original position with no evidence of binding. Do the same thing for the **right** release handle.

NOTE:
The PACU extenders can either be removed from the stretcher, in the armboard position, or in the extender position. If they are in the extender position (around the articulating head section), then the release handle on the PACU extenders must be used to raise or lower the back section.

Yes **No**
↓ → Go to RAP 2.20.

Headrest Function

28. Raise and lower the articulating headrest section, as well as rotate in both directions (forward/backward, up/down) by engaging and disengaging the thumb push lever located on either side of the headrest section. The articulating headrest moves freely with no evidence of binding along both axis. The gas spring releases and locks throughout its full range of motion, and the push handle release engages and disengages completely, returning to its original position with no evidence of binding.

Yes **No**
↓ → Go to RAP 2.21.

Thigh Section Function

29. Crank the knee Gatch. The knee Gatch rises and lowers evenly without binding.

Yes **No**
↓ → Go to RAP 2.9.

30. Go to “Final Actions” on page 2-32.

OB/GYN Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

Yes **No**
↓ → Go to “Initial Actions” on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and all four casters do not roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. If the stretcher has the Steering Plus™ Steering System option, go to step 5. If the stretcher has the corner steer option, go to step 7.

5. **Steering Plus™ Steering System option only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

6. Go to step 8.

7. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient's left foot end (patient's right head end for Europe) caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

8. Put the stretcher in the neutral position. The pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Hilow Function

9. Put a 40 pound weight at the head end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

   Yes **No**
   ↓ → Go to RAP 2.5.

10. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

11. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

12. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

13. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

14. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

15. Move the 40 pound weight to the foot end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

16. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

17. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

18. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.13

19. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

20. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

21. Remove the 40 pound weight, and continue to step 22.

Trendelenburg/Reverse Trendelenburg Function

22. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

23. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

Siderail Function

24. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

    Yes **No**
    ↓ → Go to RAP 2.7.

Back Section Function

25. Raise and lower the back panel. The back panel moves evenly without binding.

    Yes **No**
    ↓ → Go to RAP 2.8.

Foot Support Function

26. Raise and lower the foot supports, as well as rotate in both directions (forward/backward, up/down) by engaging and disengaging the release lever and the thumb push lever located underneath the foot supports. The foot support moves freely with no evidence of binding along both axis. The gas spring releases and locks throughout its full range of motion, and disengages completely, returning to its original position with no evidence of binding.

    Yes **No**
    ↓ → Go to RAP 2.10.

Foot Section Function

27. Squeeze the release handle located underneath the foot section. The foot section releases and is easily stored under the gliding patient surface.

    Yes **No**
    ↓ → Go to RAP 2.11.

28. Raise the push handles. The push handles lock into position.

    Yes **No**
    ↓ → Go to RAP 2.12.

29. Lift up on the push handle release latch. The push handles drop into the stored position.

    Yes **No**
    ↓ → Go to RAP 2.12.

30. Go to “Final Actions” on page 2-32.

Electric Stretcher Function Checks

Brake/Steer Function

1. Initial Actions have been performed.

   Yes **No**
   ↓ → Go to “Initial Actions” on page 2-5.

2. Put the stretcher in the brake position. The brake pedal seats in that position, and all four casters do not roll or rotate.

   Yes **No**
   ↓ → Go to RAP 2.1.

3. Inspect the brake pads for wear. All brake pads are serviceable.

   Yes **No**
   ↓ → Go to RAP 2.1.

4. If the stretcher has the Steering Plus™ Steering System option, go to step 5. If the stretcher has the corner steer option, go to step 7.

5. **Steering Plus™ Steering System option only.** Put the stretcher in the steer position. The fifth wheel drops into position.

   Yes **No**
   ↓ → Go to RAP 2.2.

6. Go to step 8.

7. **Corner steer stretchers only.** Put the stretcher in the steer position. Only the patient left foot end (patient right head end for Europe) caster locks into a position parallel to the side of the bed, and all other casters spin freely.

   Yes **No**
   ↓ → Go to RAP 2.3.

8. Put the stretcher in the neutral position. The pedal seats in that position, and all four casters rotate and roll freely.

   Yes **No**
   ↓ → Go to RAP 2.4.

Hilow Function

9. Put a 40 pound weight at the head end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

   Yes **No**
   ↓ → Go to RAP 2.5.

10. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

11. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

12. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

13. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

14. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

15. Move the 40 pound weight to the foot end of the stretcher. Press the right-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

16. Press the right-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

17. Press the left-side pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

18. Press the left-side release pedal, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

19. Press the foot-end pump pedal 28 times to raise the stretcher to the high position. The stretcher rises evenly, and no more than 28 full pumps are required to reach the high position.

    Yes **No**
    ↓ → Go to RAP 2.5.

20. Press the foot-end Trendelenburg and Reverse Trendelenburg pedals simultaneously, and lower the stretcher. The head and foot ends of the stretcher lower evenly.

    Yes **No**
    ↓ → Go to RAP 2.6.

21. Remove the 40 pound weight, and continue to step 22.

Trendelenburg/Reverse Trendelenburg Function

22. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

23. Press any pump pedal 28 times to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers smoothly.

    Yes **No**
    ↓ → Go to RAP 2.6.

Siderail Function

24. Raise and lower the siderails. The siderails raise and lower without binding, excessive force is not required to raise or lower siderails, and the latch locks into position.

    Yes **No**
    ↓ → Go to RAP 2.7.

Patient Controls Function

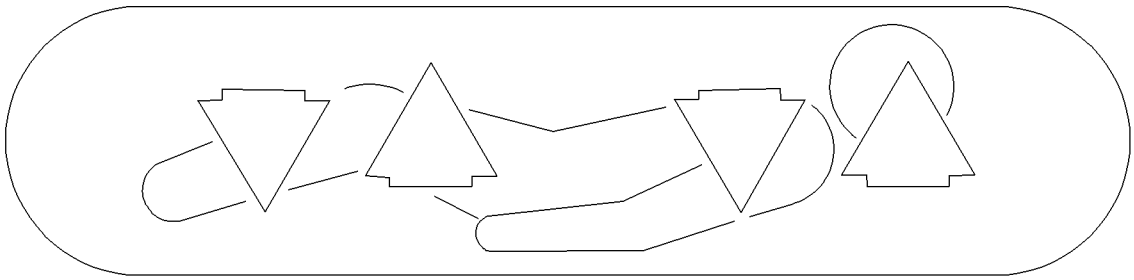
25. Raise the siderails, and lock into position. Push the head up arrow on the patient control switch located on the siderail (see figure 2-1 on page 2-28). The back section rises smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.13.

26. Release the head up arrow. The back section locks in place.

    Yes **No**
    ↓ → Go to RAP 2.13.

Figure 2-1. Patient Control Switch



m115a062

27. Push the head down arrow on the patient control switch. The back section lowers smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.13.

28. Release the head down arrow. The head section locks in place.

    Yes **No**
    ↓ → Go to RAP 2.13.

29. Push the knee up arrow on the patient control switch. The knee section rises smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.14.

30. Release the knee up arrow. The knee section locks in place.

    Yes **No**
    ↓ → Go to RAP 2.14.

31. Push the knee down arrow on the patient control switch. The knee section lowers smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.14.

32. Release the knee down arrow. The knee section locks in place.

    Yes **No**
    ↓ → Go to RAP 2.14.

Nurse Controls Function

NOTE:
When the nurse control switches are in the OFF position, the patient controls located on the siderails are disabled for patient safety (see figure 2-2 on page 2-30).

33. On the nurse control (see figure 2-2 on page 2-30) put the head ON/OFF switch in the ON position. Push the head UP/DOWN switch to the UP position. The head section rises smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.13.

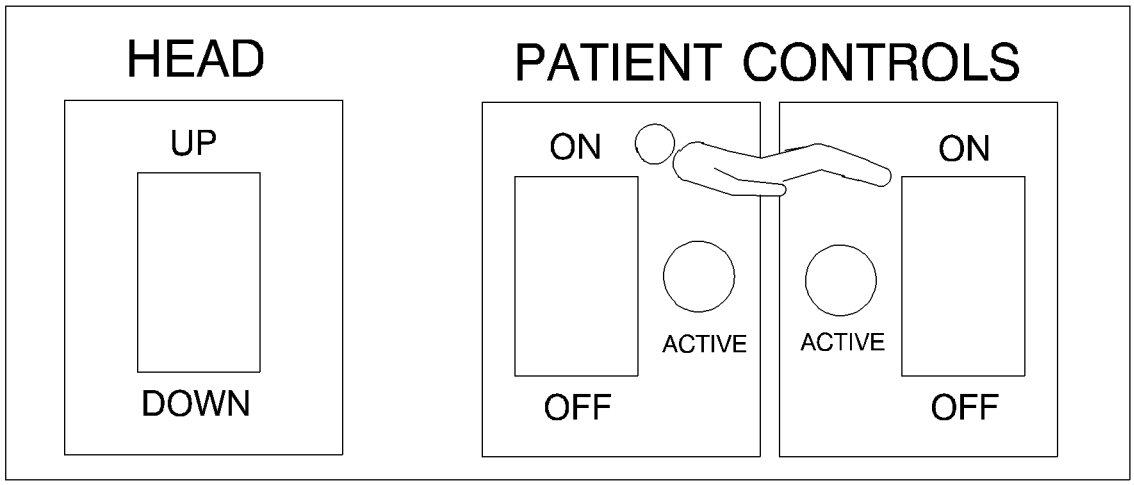
34. Release the head UP/DOWN switch when the desired position is reached. The head section locks in place.

    Yes **No**
    ↓ → Go to RAP 2.13.

35. On the nurse control (see figure 2-2 on page 2-30) put the head ON/OFF switch in the ON position. Push the head UP/DOWN switch to the DOWN position. The head section lowers smoothly without binding.

Yes **No**
↓ → Go to RAP 2.13.

Figure 2-2. Nurse Control Switch



36. Release the head UP/DOWN switch when the desired position is reached. The head section locks in place.

Yes **No**
↓ → Go to RAP 2.13.

Optional Push Handles Function

37. Raise the push handles. The push handles lock into position.

Yes **No**
↓ → Go to RAP 2.12.

38. Lift up on the push handle release latch. The push handles drop into the stored position.

Yes **No**
↓ → Go to RAP 2.12.

Manual Head Section Articulation Function

39. Rotate the left crank handle located at the foot end of the stretcher out, and lock into the cranking position. The handle locks into position.

    Yes **No**
    ↓ → Go to RAP 2.15.

40. Pull the left crank handle out from the stretcher until it stops, and turn the handle clockwise. The back section rises smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.15.

41. While holding the handle in the out position, turn the crank handle counterclockwise. The back section lowers smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.15.

Manual Thigh Section Articulation Function

42. Pull the right crank handle located at the foot end of the stretcher out, and lock into the cranking position. The handle locks into position.

    Yes **No**
    ↓ → Go to RAP 2.16.

43. Pull the right handle out from the stretcher until it stops, and turn the handle clockwise. The knee section rises smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.16.

44. While holding the handle in the out position, turn the crank handle counterclockwise. The knee section lowers smoothly without binding.

    Yes **No**
    ↓ → Go to RAP 2.16.

CPR Release Function

45. Pull and hold the CPR release handle. The back section goes into the full flat position. An empty back section may require slight downward hand pressure to rotate into the full flat position.

    Yes **No**
    ↓ → Go to RAP 2.13.

46. Go to “Final Actions” on page 2-32.

Final Actions

1. Complete the required preventive maintenance procedures. See “Preventive Maintenance Schedule” on page 6-9.
2. Ensure all wireforms and components are in place and secure.
3. Complete all required administration tasks.

2.1 Reduced Braking Ability

1. The stretcher is a PC-100/PC-200 Series Procedural stretcher.

   Yes **No**
   ↓ → Go to step 5.

2. The brake/steer pedal locks into the brake position.

   Yes **No**
   ↓ → Check the brake/steer link (B) at the head and foot ends of the stretcher for proper orientation (see figure 2-3 on page 2-36). Adjust the brake/steer link (B) orientation if necessary, and tighten the brake/steer link screw (A). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 3.

3. When each brake/steer pedal is activated, each hex rod (C) rotates 45° in either direction from neutral.

   Yes **No**
   ↓ → Check the brake/steer link (B) at the head and foot ends of the stretcher for proper orientation. Adjust the brake/steer link (B) orientation if necessary, and tighten the brake/steer link screw (A). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, go to step 10.

4. Go to step 10.

5. The brake/steer pedal locks into the brake position.

   Yes **No**
   ↓ → Go to step 9.

6. The wireforms (G) that connect the brake activation weldment (H) to the rocker link (F) are bent (see figure 2-4 on page 2-37).

   Yes **No**
   ↓ → Go to step 9.

7. Replace any bent wireforms.

   This solves the problem.

   Yes **No**
   ↓ → Go to step 9.

8. go to "Final Actions" on page 2-32.

9. When each brake/steer pedal is activated, each hex rod (C) rotates 45° in either direction from neutral.

   Yes **No**
   ↓ → Check the rocker link (F) for proper orientation and check the setscrew (E) torque of 40 ± 8 in-lb (4.6 ± 0.9 N·m). Adjust the rocker link (F) orientation if necessary, and tighten the setscrew (E) to specification. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 10.

10. All four caster brake shoes are properly adjusted.

    Yes **No**
    ↓ → Adjust the caster brake shoes (refer to procedure 4.31). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 11.

11. All four casters lock in the brake position and do not rotate or swivel.

    Yes **No**
    ↓ → Replace the defective caster(s) (refer to procedure 4.29) or (refer to procedure 4.30). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 12.

12. Another part of the stretcher interferes with the brake/steer mechanism.

    Yes **No**
    ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

13. Take appropriate actions to eliminate the interference. This solves the problem.

    Yes **No**
    ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

14. Go to "Final Actions" on page 2-32.

2.2 Loss of the Steering Plus™ Steering System

1. The brake/steer pedal locks into the steer position.

   Yes **No**
   ↓ → Go to step 3.

2. The fifth wheel drops into position.

   Yes **No**
   ↓ → Inspect the fifth wheel pivot arms and pivot bracket for proper assembly (refer to procedure 4.33) or (refer to procedure 4.34). If this solves the problem, go to “Final Actions” on page 2-32. Otherwise, continue to step 3.

3. The pivot arms or pivot brackets are bent.

   Yes **No**
   ↓ → Go to step 6.

4. Remove the Steering Plus™ Steering System assembly, and replace any damaged or inoperative parts (refer to procedure 4.33) or (refer to procedure 4.34). This solves the problem.

   Yes **No**
   ↓ → Go to step 6.

5. Go to “Final Actions” on page 2-32.

6. The fifth wheel is worn.

   Yes **No**
   ↓ → Go to step 9.

7. Replace the fifth wheel (refer to procedure 4.33) or (refer to procedure 4.34). This solves the problem.

   Yes **No**
   ↓ → Go to step 9.

8. Go to “Final Actions” on page 2-32.

9. Another part of the stretcher interferes with the Steering Plus™ Steering System assembly.

   Yes **No**
   ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

10. Eliminate the interference. This solves the problem.

    Yes **No**
    ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

11. Go to “Final Actions” on page 2-32.

2.3 Loss of Corner Steer

1. The brake/steer pedal locks into the steer position.

   Yes ↓ **No** → Go to step 3.

2. The corner steer caster locks into position.

   Yes ↓ **No** → Replace the caster (refer to procedure 4.29) or (refer to procedure 4.30). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 3.

3. The stretcher is a PC-100/PC-200 Series Procedural stretcher.

   Yes ↓ **No** → Go to step 6.

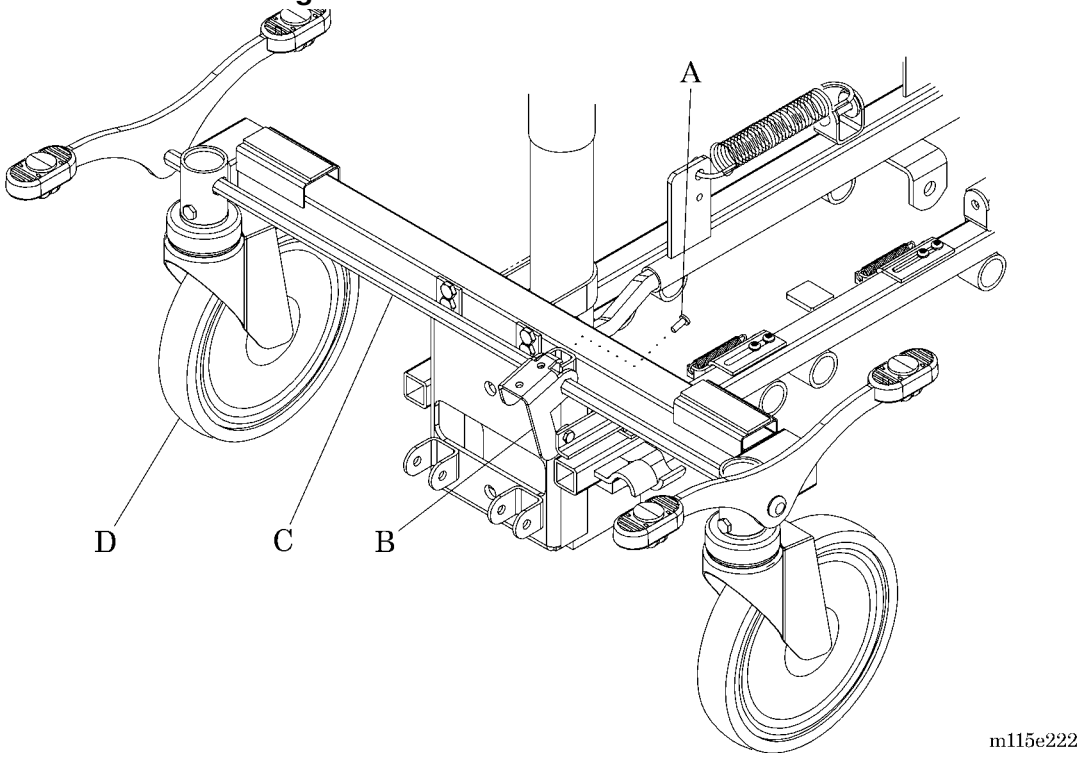
4. Tighten the brake/steer link screw (A) (see figure 2-3 on page 2-36).

   This solves the problem.

   Yes ↓ **No** → Go to step 8.

5. Go to "Final Actions" on page 2-32.

Figure 2-3. Brake/Steer Link Screw

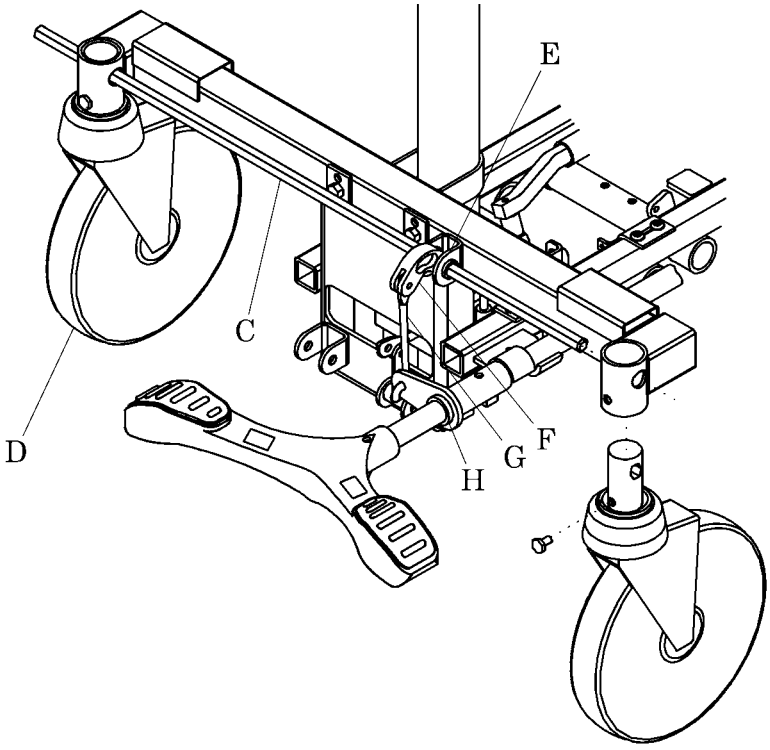


6. Torque the rocker arm setscrew (E) to 40 ± 8 in-lb (4.6 ± 0.9 N·m) (see figure 2-4 on page 2-37).

   This solves the problem.

   Yes **No**
   ↓ → Go to step 8.

Figure 2-4. Rocker Arm Setscrew



7. Go to "Final Actions" on page 2-32.

8. Another part of the stretcher interferes with the steering linkages.

   Yes **No**
   ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

9. Take appropriate actions to eliminate the interference.

   This solves the problem.

   Yes **No**
   ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

10. Go to "Final Actions" on page 2-32.

2.4 Stretcher Will Not Go Into the Neutral Position

1. The stretcher is a PC-100/PC-200 Series Procedural stretcher.

   Yes **No**
   ↓ → Go to step 7.

2. The brake/steer pedal locks into the neutral position.

   Yes **No**
   ↓ → Go to step 5.

3. The stretcher rolls freely in all directions.

   Yes **No**
   ↓ → Inspect each caster. Replace any defective casters (refer to procedure 4.29). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, go to step 5.

4. Go to "Final Actions" on page 2-32.

5. When each brake/steer pedal is activated, each hex rod (C) rotates 45° in either direction from neutral (see figure 2-3 on page 2-36).

   Yes **No**
   ↓ → Check the brake/steer link (B) at the head and foot ends of the stretcher for proper orientation. Adjust the brake/steer link (B) orientation if necessary, and tighten the brake/steer link screw (A). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, go to step 13.

6. Go to step 13.

7. The brake/steer pedal locks into the neutral position.

   Yes **No**
   ↓ → Go to step 9.

8. The stretcher rolls freely in all directions.

   Yes **No**
   ↓ → Inspect each caster. Replace any defective casters (refer to procedure 4.30). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 9.

9. Inspect the wireforms (G) that connect the brake activation weldment (H) to the rocker link (F). One or both are bent (see figure 2-4 on page 2-37).

   Yes **No**
   ↓ → Go to step 12.

10. Replace any bent wireforms.

This solves the problem.

Yes **No**
↓ → Go to step 12.

11. Go to "Final Actions" on page 2-32.

12. When each brake/steer pedal is activated, each hex rod (C) rotates 45° in either direction from neutral.

Yes **No**
↓ → Check the rocker link for proper orientation, and check the setscrew torque of 40 ± 8 in-lb (4.6 ± 0.9 N·m). Adjust the rocker link (F) orientation if necessary, and tighten the setscrew (E) to specification. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 13.

13. Remove the hex rod (C) from the caster(s) (D) (refer to procedure 4.29) or (refer to procedure 4.30). Block the stretcher with a piece of 8" x 2" x 4" lumber. Put the 8" x 2" x 4" at each corner of the lower frame in turn, and rotate the caster. A ratchet noise is heard when the caster is rotated.

Yes **No**
↓ → Go to step 16.

14. Replace any defective casters (refer to procedure 4.29) or (refer to procedure 4.30).

This solves the problem.

Yes **No**
↓ → Go to step 16.

15. Go to "Final Actions" on page 2-32.

16. Another part of the stretcher interferes with the brake/steer pedal.

Yes **No**
↓ → Call Hill-Rom Technical Support at (800) 445-3720.

17. Take appropriate actions to eliminate the interference.

This solves the problem.

Yes **No**
↓ → Call Hill-Rom Technical Support at (800) 445-3720.

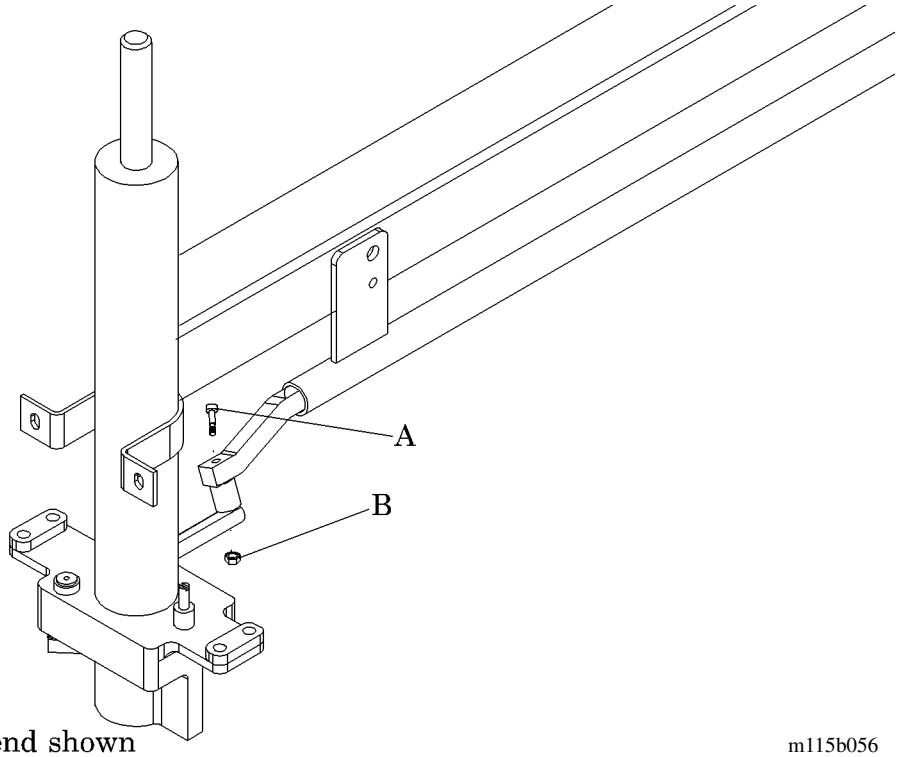
18. Go to "Final Actions" on page 2-32.

2.5 Reduced Pedal Pumping

1. Press the pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. The stretcher rises to the high position.

   Yes **No**
   ↓ → Ensure that the pump linkage shoulder bolt (A) and nut (B) are in place, and check the nut torque of 40 ± 8 in-lb (4.6 ± 0.9 N·m) (see figure 2-5 on page 2-40). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 2.

Figure 2-5. Pump Linkage Shoulder Bolt Location



Foot end shown m115b056

2. Another part of the stretcher interferes with the pump pedal weldments.

   Yes **No**
   ↓ → Go to step 5.

3. Take appropriate actions to eliminate the interference.

   This solves the problem.

   Yes **No**
   ↓ → Go to step 5.

4. Go to "Final Actions" on page 2-32.

5. Lower the stretcher, and press the pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. Both the head and foot ends of the stretcher raise evenly.

   Yes **No**

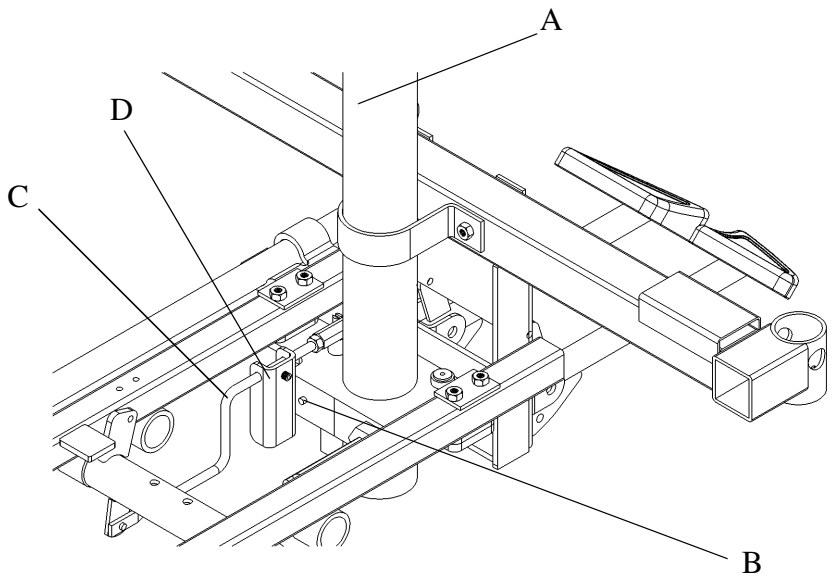
   ↓ → If the head end does not rise, replace the hydraulic cylinder at the head end of the stretcher. If the foot end does not rise, replace the hydraulic cylinder at the foot end of the stretcher (refer to procedure 4.32). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

6. Go to "Final Actions" on page 2-32.

2.6 Stretcher Will Not Lower

1. When the foot release pedal is pushed, the hydraulic release plate (D) fully depresses the release pin (B) on the hydraulic cylinder (A) (see figure 2-6 on page 2-42).

Figure 2-6. Release Mechanism Location



Yes **No**
↓ → Adjust the release mechanism (refer to procedure 4.32). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 2.

2. The wireforms (C) are bent or missing (see figure 2-6 on page 2-42).

Yes **No**
↓ → Go to step 1.

3. Replace the bent or missing wireforms.

   This solves the problem.

Yes **No**
↓ → Go to step 5.

4. Go to "Final Actions" on page 2-32.

5. Press the pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. Press the Trendelenburg pedal. The head end of the stretcher lowers.

   Yes **No**
   ↓ → Replace the hydraulic cylinder at the head end of the stretcher (refer to procedure 4.32). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 6.

6. Press the pump pedal 28 times (24 times for the PC-100/PC-200 stretcher) to raise the stretcher to the high position. Press the Reverse Trendelenburg pedal. The foot end of the stretcher lowers.

   Yes **No**
   ↓ → Replace the hydraulic cylinder at the foot end of the stretcher (refer to procedure 4.32). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

7. Go to "Final Actions" on page 2-32.

2.7 Siderail Malfunction

1. The stretcher is a PC-100/PC-200 Series Procedural stretcher.

   Yes **No**
   ↓ → Go to step 3.

2. Go to step 6.

3. The force required to swing the siderail out from the stored position is excessive or too easy.

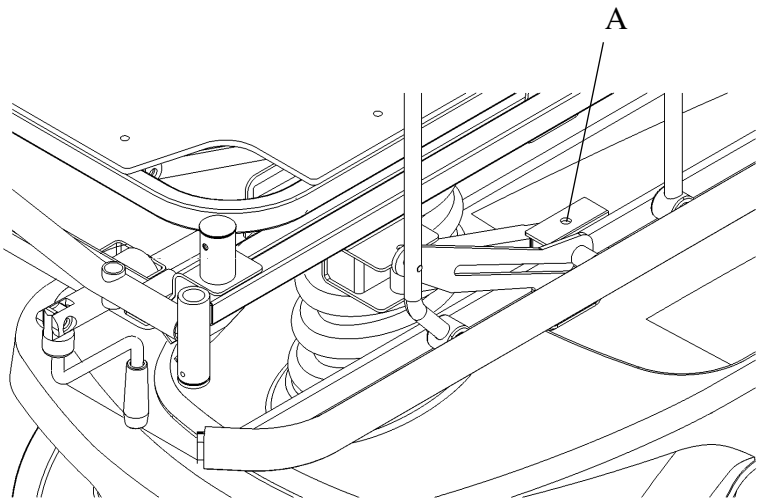
   Yes **No**
   ↓ → Go to step 6.

4. Adjust the torque on the four swing arm pivot bolts (A) until the desired force is obtained (see figure 2-7 on page 2-44).

   This solves the problem.

   Yes **No**
   ↓ → Go to step 6.

Figure 2-7. Swing Arm Pivot Bolts



5. Go to "Final Actions" on page 2-32.

6. Raise the siderail, but do not allow the latch to lock. The siderail falls without assistance.

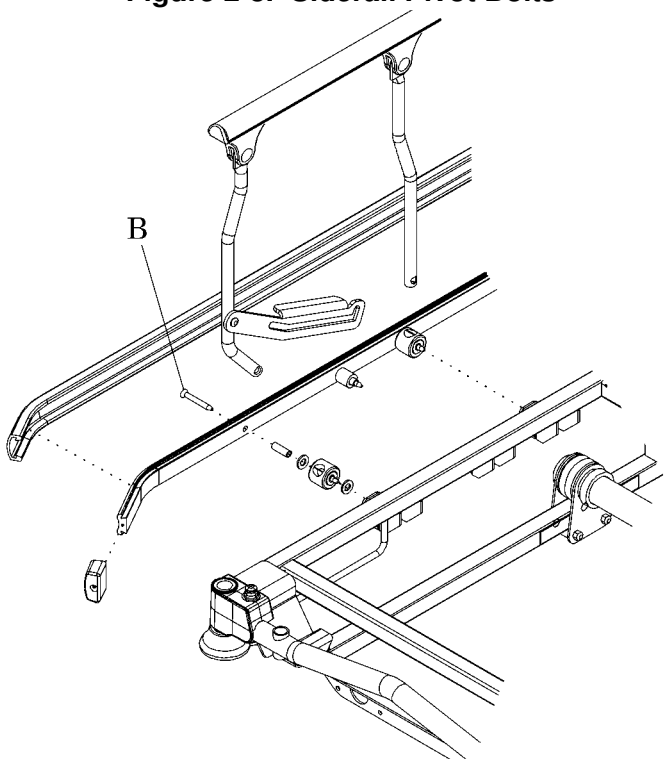
   Yes **No**
   ↓ → Go to step 9.

7. Torque the five siderail pivot bolts (B) to 140 ± 10 in-lb (15.8 ± 1.1 N·m) (see figure 2-8 on page 2-45).

   This solves the problem.

   Yes **No**
   ↓ → Go to step 9.

Figure 2-8. Siderail Pivot Bolts



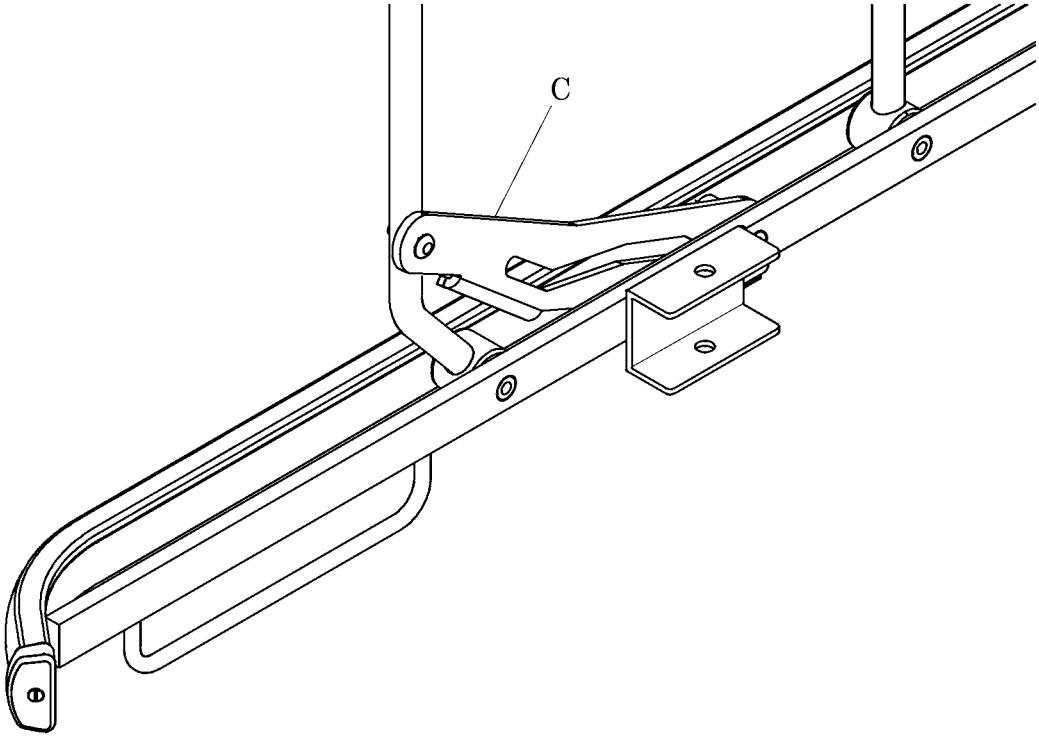
m115e221

8. Go to "Final Actions" on page 2-32.

9. Raise the siderail. The siderail latch (C) falls into the locked position (see figure 2-9 on page 2-46).

   Yes **No**
   ↓ → Replace the latch (refer to procedure 4.4) or (refer to procedure 4.6). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 10.

Figure 2-9. Siderail Latch



10. Another part of the stretcher interferes with the siderail.

    Yes **No**
    ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

11. Take appropriate actions to eliminate the interference.

    This solves the problem.

    Yes **No**
    ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

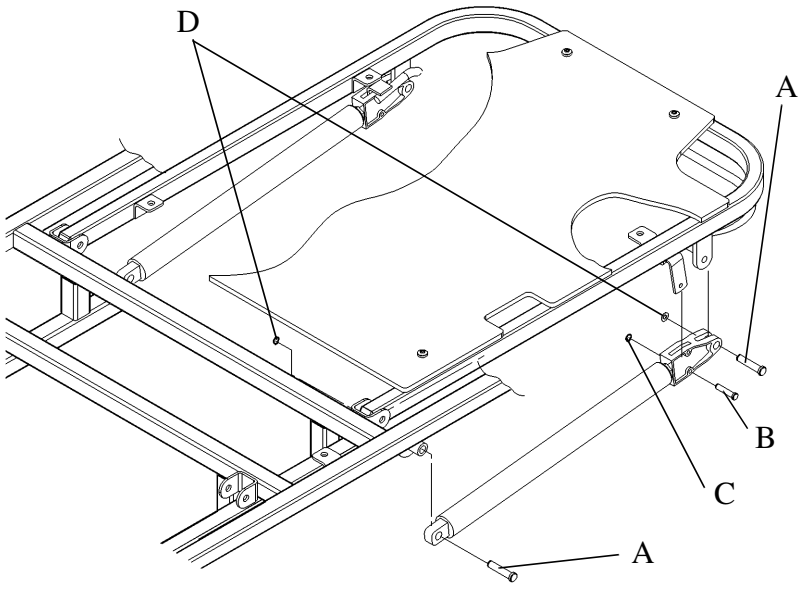
12. Go to “Final Actions” on page 2-32.

2.8 Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Does Not Raise/Lower Correctly

1. The headed pins (A), solid rivets (B), push nuts (C), and retaining rings (D) are in place (see figure 2-10 on page 2-47).

   Yes **No**
   ↓ → Replace any missing hardware. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 2.

Figure 2-10. Back Panel



2. When the release handle is activated, the back panel rises without assistance.

   Yes **No**
   ↓ → Replace the defective back panel gas spring (refer to procedure 4.16). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

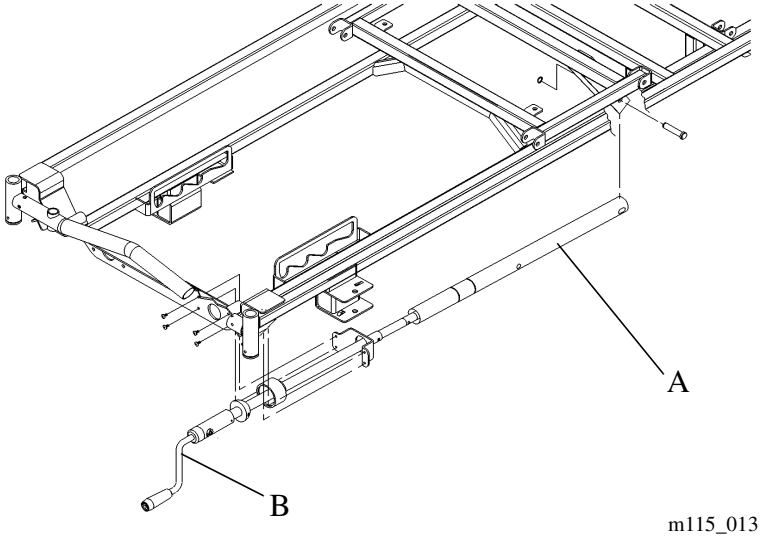
3. Go to "Final Actions" on page 2-32.

2.9 Procedural Stretcher Thigh Panel Will Not Raise/Lower

1. The crank handle (B) is attached to the knee screw assembly (A) (see figure 2-11 on page 2-48).

   Yes **No**
   ↓ → Attach the crank handle (refer to procedure 4.19). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 2.

Figure 2-11. Knee Screw Assembly



2. Another part of the stretcher interferes with the knee screw assembly.

   Yes **No**
   ↓ → Go to step 5.

3. Take appropriate actions to eliminate the interference.

   This solves the problem.

   Yes **No**
   ↓ → Go to step 5.

4. Go to "Final Actions" on page 2-32.

5. Replace the knee screw assembly (refer to procedure 4.19).

   This solves the problem.

   Yes **No**
   ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

6. Go to "Final Actions" on page 2-32.

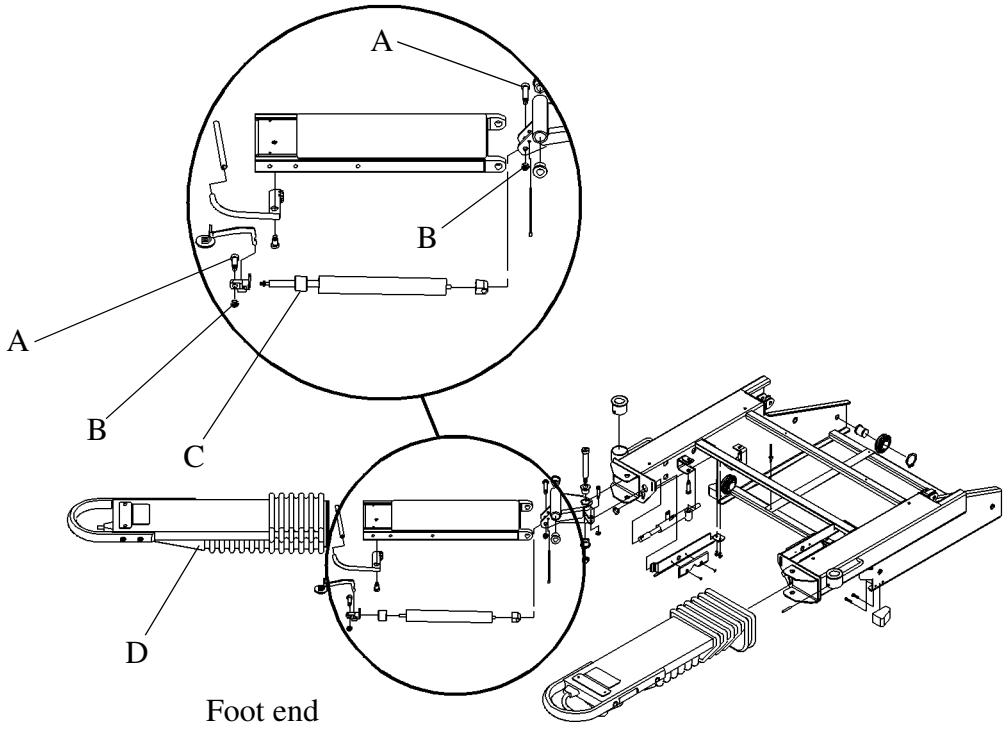
2.10 OB/GYN Stretcher Foot Supports Malfunction

The OB/GYN stretcher foot supports will not raise/lower or rotate inward/outward correctly.

1. Shoulder bolts (A), locknuts (B), and gas spring spacer (C) are in place (see figure 2-12 on page 2-49).

   Yes ↓ **No** → Replace any missing hardware. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 2.

Figure 2-12. Foot Supports



m115d202

2. When the release handle is activated, the foot support (D) rises without assistance.

   Yes ↓ **No** → Replace the defective foot support gas spring (refer to procedure 4.28). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

3. The foot support rises without activating the release lever and does not lock into position along its travel.

   Yes **No**
   ↓ → Go to step 5.

4. Replace the defective foot support gas spring (refer to procedure 4.28). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

5. The foot support rotates outward and inward when the release handle at the end of the foot support is activated.

   Yes **No**
   ↓ → Replace the defective foot support Mechlok®[1] device (refer to procedure 4.27). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

6. Go to "Final Actions" on page 2-32.

1. Mechlok® is a registered trademark of P. L. Porter Company.

2.11 OB/GYN Foot Section Does Not Release Correctly

1. Another part of the stretcher interferes with the foot section assembly.

   Yes **No**
   ↓ → Go to step 4.

2. Take appropriate actions to eliminate the interference.

   This solves the problem.

   Yes **No**
   ↓ → Go to step 4.

3. Go to "Final Actions" on page 2-32.

4. The stretcher is in the standard position (non-examination).

   Yes **No**
   ↓ → Slide the patient platform into the standard position. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 5.

5. Check for proper operation of the release handle and cable function. All mechanisms are working properly.

   Yes **No**
   ↓ → Adjust the foot section release handle cable assembly. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 6.

6. Replace the foot section assembly. The foot section operates properly.

   Yes **No**
   ↓ → Call Hill-Rom Technical Support at (800) 445-3720.

7. Go to "Final Actions" on page 2-32.

2.12 Push Handle Malfunction

1. Another part of the stretcher interferes with the push handle assembly.

   Yes **No**
   ↓ → Go to step 4.

2. Take appropriate actions to eliminate the interference.

   This solves the problem.

   Yes **No**
   ↓ → Go to step 4.

3. Go to "Final Actions" on page 2-32.

4. The push handle falls into position when the release handle is activated.

   Yes **No**
   ↓ → Replace the push handle latch (refer to procedure 7.10). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, continue to step 5.

5. The push handle locks into position.

   Yes **No**
   ↓ → Replace the push handles (refer to procedure 7.10). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

6. Go to "Final Actions" on page 2-32.

2.13 Electric Stretcher Back Panel Does Not Raise/Lower Electrically

1. Crank the back panel to a low to mid-height position. This moves the unit off the limits of the potentiometer and will verify whether the up or down electrical operations are working.

2. The stretcher has been connected to an external power supply and the power cord is not damaged.

   Yes **No**
   ↓ → Go to "Initial Actions" on page 2-5.

3. On the nurse control, the head ON/OFF switch is in the ON position, and the LEDs are lit (see figure 2-2 on page 2-30).

   Yes **No**
   ↓ → Go to step 6.

4. Push the head up or down arrow on the patient control switch on both sides (see figure 2-1 on page 2-28). The head drive operates in both directions for both sides.

   Yes **No**
   ↓ → Check the previous steps. Go to step 6.

5. Go to "Final Actions" on page 2-32

6. The plugs in the control board are all seated properly.

   Yes **No**
   ↓ → Seat the plugs firmly in place. Check the previous steps. Go to step 3. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

7. Go to "Final Actions" on page 2-32.

2.14 Electric Stretcher Thigh Panel Does Not Raise/Lower Electrically

1. The stretcher has been connected to an external power supply, and the power cord is not damaged.

   Yes **No**
   ↓ → Go to "Initial Actions" on page 2-5.

2. On the nurse control, the head ON/OFF switch is in the ON position, and the LEDs are lit (see figure 2-2 on page 2-30).

   Yes **No**
   ↓ → Go to step 5.

3. Push the head up or down arrow on the patient control switch on both sides (see figure 2-1 on page 2-28). The knee drive operates in both directions for both sides.

   Yes **No**
   ↓ → Check the previous steps. Go to step 5.

4. Go to "Final Actions" on page 2-32.

5. The plugs in the control board are all seated properly.

   Yes **No**
   ↓ → Seat the plugs firmly in place. Check the previous steps. Go to step 2. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

6. Go to "Final Actions" on page 2-32.

2.15 Manual Back Articulation

1. The crank handle is attached to the back screw assembly and engages the shaft mechanism.

   Yes **No**
   ↓ → Attach the crank handle, and go to "Final Actions" on page 2-32.

2. Turning the crank handle elevates the thigh section.

   Yes **No**
   ↓ → Another part of the stretcher interferes with the back screw assembly. Eliminate the interference, and go to "Final Actions" on page 2-32.

3. Releasing the crank handle allows the back section to remain firmly in place.

   Yes **No**
   ↓ → Replace the back screw assembly. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

4. Go to "Final Actions" on page 2-32.

2.16 Manual Thigh Articulation

1. The crank handle is attached to the knee screw assembly and engages the shaft mechanism.

   Yes **No**
   ↓ → Attach the crank handle, and go to "Final Actions" on page 2-32.

2. Turning the crank handle elevates the thigh section.

   Yes **No**
   ↓ → Another part of the stretcher interferes with the knee screw assembly. Eliminate the interference, and go to "Final Actions" on page 2-32.

3. Releasing the crank handle allows the thigh section to remain firmly in place.

   Yes **No**
   ↓ → Replace the knee screw assembly (refer to procedure 4.19). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

4. Go to "Final Actions" on page 2-32.

2.17 Trauma Stretcher Foot Section Malfunction

1. The foot section is attached to the upper frame weldment pivot brackets.

   Yes **No**
   ↓ → Attach the foot section.

2. The foot section is obstructed.

   Yes **No**
   ↓ → Go to step 4.

3. Remove the obstruction from the foot section or the upper frame cassette support surface. If this solves the problem, go to “Final Actions” on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

4. Go to “Final Actions” on page 2-32.

2.18 Trauma Stretcher Cassette Lift Handle Malfunction

1. The cassette lift cable and spring are properly attached.

   Yes **No**
   ↓ → Make sure the round vinyl cap is attached to the open end of the spring. Orient the spring so the open end that attaches to the cable link is facing the base of the stretcher.

2. The cassette lift mechanism is obstructed.

   Yes **No**
   ↓ → Go to step 4.

3. Remove the obstruction from the cassette lift mechanism or the upper frame cassette support surface. If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

4. Go to "Final Actions" on page 2-32.

2.19 Surgical Brake/Steer Pedal Malfunction

1. With the stretcher in the brake position, rotate the surgical brake/steer pedal at the head end toward the steer position; do not force it. The pedal at the head end rotates freely without disengaging the stretcher out of the brake position, providing access for the caregiver or equipment.

   Yes **No**

   ↓ → Make sure the headed pin is oriented correctly, and the retaining ring is fully seated (see figure 5-5 on page 5-20) (item 37 and 39). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

2. Go to "Final Actions" on page 2-32.

2.20 Surgical Stretcher Back Section—Release Handle/Gas Spring Malfunction

NOTE:
The PACU extenders can either be removed from the stretcher, in the armboard position, or in the extender position. If they are in the extender position (around the articulating head section), then the release handle on the PACU extenders must be used to raise or lower the back section.

1. The gas spring releases and locks (every 10-15 degrees) throughout its full range of motion, and the release handle engages and disengages approximately half-way through its full travel, returning to its original position with no evidence of binding.

   Yes **No**
   ↓ → Adjust the surgical back section gas spring (refer to procedure 4.17). If this solves the problem, go to "Final Actions" on page 2-32.

2. When the release handle is activated approximately half-way through its full travel, the back section rises without assistance.

   Yes **No**
   ↓ → Replace the surgical back section gas spring (refer to procedure 4.17). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

3. Go to "Final Actions" on page 2-32.

2.21 Surgical Stretcher Articulating Headrest—Push Handle Release/Gas Spring Malfunction

1. The gas spring releases and locks throughout its full range of motion, and the push handle release engages and disengages completely, returning to its original position with no evidence of binding.

   Yes **No**
   ↓ → Adjust the articulating headrest gas spring (refer to procedure 4.18). If this solves the problem, go to "Final Actions" on page 2-32.

2. When the push handle release is activated, the articulating headrest is able to be moved without any evidence of binding.

   Yes **No**
   ↓ → Replace the articulating headrest gas spring (refer to procedure 4.18). If this solves the problem, go to "Final Actions" on page 2-32. Otherwise, call Hill-Rom Technical Support at (800) 445-3720.

NOTE:
The cable for the Mechlok®[1] device and the gas spring cable are fixed length cables that actuate the gas spring and Mechlok® device. If maintenance was performed internally to the headrest shroud, the cables may have been routed incorrectly, which also could cause binding of the articulating headrest.

3. Go to "Final Actions" on page 2-32.

1. Mechlok® is a registered trademark of P. L. Porter Company.

NOTES:

Chapter 3
Theory of Operation

Chapter Contents

Schematics/Wiring Diagrams . . . . . 3 - 3
Theory of Operation . . . . . 3 - 6
- Control Board . . . . . 3 - 6
- Power Supply . . . . . 3 - 6
- Input Circuit . . . . . 3 - 7
- Logic . . . . . 3 - 7
- Comparator Circuit . . . . . 3 - 7
- LED Outputs . . . . . 3 - 8
- Relay Outputs . . . . . 3 - 8
- Potentiometer Calibration Board . . . . . 3 - 8

NOTES:

Schematics/Wiring Diagrams

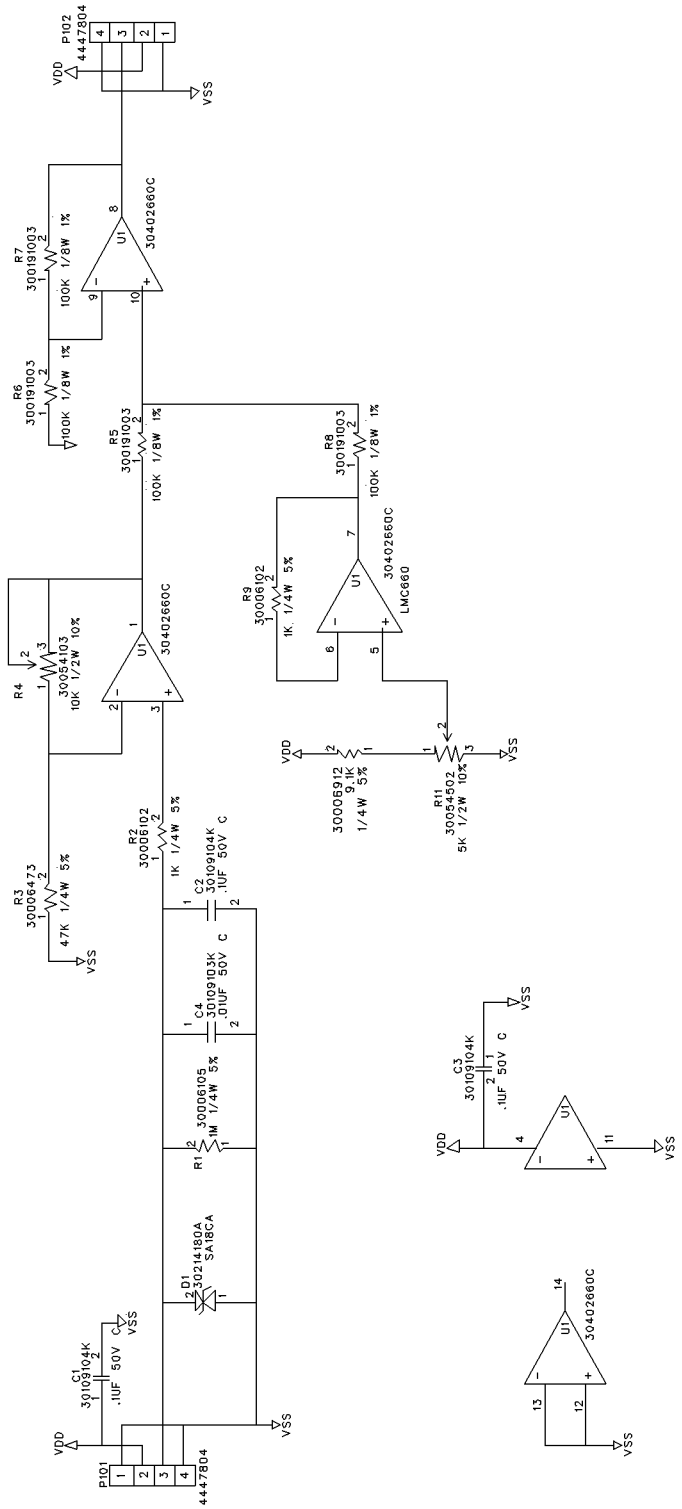
Figure 3-1. Control Board Schematic Wiring Diagram—P/N 49603

Refer to the fold-out FO 3-1 at the rear of this manual.

Figure 3-2. Electric Stretcher Wiring Diagram 120V/230V—P/N 60389

Refer to the fold-out FO 3-2 at the rear of this manual.

Figure 3-3. Electric Stretcher Potentiometer Calibration P.C. Board



Theory of Operation

Control Board

The control board contains the necessary analog and digital circuitry to govern powered bed movement as outlined in this manual.

Power Supply

Connector P5 is the AC power input.

WARNING:
Fuses F1 and F3 protect the stretcher's electrical system. For 120V AC power, a 6.30A UL 198G time-lag fuse should be used. For 230V AC, a 2.50A IEC 127.3 time-lag fuse should be used. Check the assembly drawing or schematic for the proper Hill-Rom fuse. Personal injury can occur.

Resistors R37, R39, and R40 are used to configure the primary coils of the transformer (T1) for series or parallel connection. R37 and R40 provide parallel connection for a 120V AC input. Only R39 provides series connection for a 230V AC input.

The transformer full load rated output (as configured for this supply) is 15V rms at 670mA rms.

The PTC overcurrent protection device, R38, protects the secondary circuit and raw supply from overloads. This component is necessary for regulatory approval.

Diodes CR21 - CR24 and capacitor C21 rectify and filter the transformer's secondary output.

Q1 regulates +12 +/- 0.5V DC. Maximum output current for this application is approximately 250mA. Q1 can maintain regulation with an input voltage down to 14.6V DC.

The transient voltage suppressor, CR20, protects the load from overvoltage conditions.

The capacitor, C11, filters out noise.

Input Circuit

The transient voltage suppressors, CR8, CR10 - CR13, protect the logic from overvoltage conditions.

The input resistors, R4 - R7, R9, serve two purposes. They act as current limiting resistors for the associated CMOS logic gates, and with capacitors, C6 - C10, create a delay to filter out any switch bounce.

The delay created by the resistors and capacitors along with the diodes, CR6, CR7, CR14, CR17, CR18, and circuit logic prevent rapid switching from an up function to a down function. This protects the switching components in the motor drive circuitry.

Logic

The CMOS logic gates are configured to obtain the desired functionality of the stretcher.

Schmitt NAND gates are used at any point where there is a slow rising input signal. This ensures clean logic levels and sharp transitions for the remainder of the logic circuit.

U7 provides sufficient drive current for the relays, K1 - K6.

Comparator Circuit

The potentiometer position sensor rotates counterclockwise as the back section of the stretcher articulates up, clockwise as the back section articulates down.

The resistance of the potentiometer decreases linearly as the back section articulates up. The converse is true for articulating down.

The resistor, R1, limits the input current to the comparators.

The resistor, R41, ensures that the input to the comparators is pulled low when the connector, P1, is disconnected.

The comparator circuit monitors the voltage output of the potentiometer calibration board. This voltage represents the angle of inclination of the back section of the stretcher.

The resistors, R22 - R25, R32 divide the regulated DC supply voltage to set the trip points of the comparators. The trip points of the comparators are set to obtain the desired electrical limits of the bed functions.

LED Outputs

The function power indicating LEDs are illuminated when patient and caregiver controls are active.

When the controls are active, the regulated DC supply voltage is provided to the current limiting resistors, R10 and R11, by the patient control switches and approximately 2.1V DC is dropped across the LEDs to provide the desired illumination.

Relay Outputs

Under the appropriate input conditions, the relays, K2 - K6, switch the AC supply voltage to the motors to articulate the stretcher sections.

When the back section of the stretcher is articulating, the relay K1 switches the AC supply voltage to release the brake on the back section motor. When the head function up or down button or switch is released, the relay opens, and back section motion is impeded.

The spark quenchers, SQ1 - SQ4, protect the relay contacts from excessive damage as a result of arcing when opening and closing.

Potentiometer Calibration Board

The potentiometer calibration board tunes the output voltage of the position sensor to enable the comparator circuit on the control board to accurately set the articulation limits of the stretcher independent of the position sensor's tolerance.

The calibration procedure for the board is completed at the factory. The output voltage, which can be monitored on pin 2 of P1 on the control board, should be approximately 10.8V DC at the head down limit, 5.25V DC at the patient head up limit, and 3.15V DC at the caregiver head up limit.

If the potentiometer calibration board requires replacement, the entire potentiometer cable assembly must be replaced.

Chapter 4
Removal, Replacement, and Adjustment Procedures

Chapter Contents

Introduction . . . . . 4 - 6

Procedural/Fixed Height/Trauma/Surgical/OB/GYN Stretcher Siderail . . . . . 4 - 7

Removal . . . . . 4 - 7

Replacement . . . . . 4 - 8

Switching the Procedural/Fixed Height/Trauma Stretcher Siderail to the Opposite Side of the Stretcher . . . . . 4 - 10

Electric Stretcher Siderail . . . . . 4 - 12

Removal . . . . . 4 - 12

Replacement . . . . . 4 - 14

PC-100/PC-200 Procedural Stretcher Siderail Latch . . . . . 4 - 17

Removal . . . . . 4 - 17

Replacement . . . . . 4 - 18

PC-100/PC-200 Procedural Stretcher Siderail Tube . . . . . 4 - 19

Removal . . . . . 4 - 19

Replacement . . . . . 4 - 20

Procedural/Fixed Height/Trauma/Surgical/OB/GYN/Electric Stretcher Siderail Latch . . . . . 4 - 21

Removal . . . . . 4 - 21

Replacement . . . . . 4 - 21

4

Procedural/Fixed Height/Trauma/Surgical/OB/GYN/Electric Stretcher Siderail End Tube . . . . . 4 - 23
Removal . . . . . 4 - 25
Replacement . . . . . 4 - 25
Procedural/Fixed Height/Trauma/Surgical/OB/GYN/Electric Stretcher Siderail Transfer Stop/Common Tube . . . . . 4 - 26
Removal . . . . . 4 - 26
Replacement . . . . . 4 - 26
OB/GYN Stretcher Patient Grip Handle. . . . . 4 - 27
Removal . . . . . 4 - 27
Replacement . . . . . 4 - 28
Electric Stretcher Left/Right Siderail Cable Assembly and Upright Tube. . . . . 4 - 29
Removal . . . . . 4 - 29
Replacement . . . . . 4 - 31
Electric Stretcher Patient Control Switch . . . . . 4 - 33
Removal . . . . . 4 - 33
Replacement . . . . . 4 - 34
Electric Stretcher Nurse Control Switch. . . . . 4 - 35
Removal . . . . . 4 - 35
Replacement . . . . . 4 - 36
Electric Stretcher Control Board. . . . . 4 - 37
Removal . . . . . 4 - 37
Replacement . . . . . 4 - 40
Electric Stretcher Potentiometer . . . . . 4 - 42
Removal . . . . . 4 - 42
Replacement . . . . . 4 - 44
Adjustment . . . . . 4 - 44
Electric Stretcher Power Cord Assembly . . . . . 4 - 46
Removal . . . . . 4 - 46
Replacement . . . . . 4 - 47

Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Gas Spring . . 4 - 49
Removal . . . . . 4 - 49
Replacement . . . . . 4 - 51
Adjustment . . . . . 4 - 51
Surgical Stretcher Back Section Gas Spring. . . . . 4 - 53
Removal . . . . . 4 - 53
Replacement . . . . . 4 - 54
Adjustment . . . . . 4 - 54
Surgical Stretcher Articulating Headrest Gas Spring . . . . . 4 - 56
Removal . . . . . 4 - 56
Replacement . . . . . 4 - 57
Adjustment . . . . . 4 - 57
Procedural/Surgical Stretcher Knee Screw Assembly . . . . . 4 - 59
Removal . . . . . 4 - 59
Replacement . . . . . 4 - 60
Electric Stretcher Knee Drive Assembly . . . . . 4 - 61
Removal . . . . . 4 - 61
Replacement . . . . . 4 - 62
Electric Stretcher Head Drive Assembly . . . . . 4 - 64
Removal . . . . . 4 - 64
Replacement . . . . . 4 - 66
Electric Stretcher CPR Release Cable Assembly . . . . . 4 - 68
Removal . . . . . 4 - 68
Replacement . . . . . 4 - 70
Adjustment . . . . . 4 - 71
Procedural/Electric/Trauma/Surgical/OB/GYN Stretcher Upper Frame . . . . . 4 - 72
Removal . . . . . 4 - 72
Replacement . . . . . 4 - 74

Fixed Height Stretcher Upper Frame . . . . . 4 - 76
Removal . . . . . 4 - 76
Adjustment . . . . . 4 - 77
Replacement . . . . . 4 - 78
Base Shroud . . . . . 4 - 80
Removal . . . . . 4 - 80
Replacement . . . . . 4 - 81
OB/GYN Stretcher Upper Frame Catch Shroud. . . . . 4 - 82
Removal . . . . . 4 - 82
Replacement . . . . . 4 - 83
OB/GYN Stretcher Foot Support Mechlok® Device . . . . . 4 - 84
Removal . . . . . 4 - 84
Replacement . . . . . 4 - 86
OB/GYN Stretcher Foot Support Gas Spring. . . . . 4 - 87
Removal . . . . . 4 - 87
Replacement . . . . . 4 - 89
PC-100/PC-200 Procedural Stretcher Caster . . . . . 4 - 91
Removal . . . . . 4 - 91
Replacement . . . . . 4 - 93
Procedural/Fixed Height/Trauma/Surgical/OB/GYN/Electric Stretcher Caster . 4 - 95
Removal . . . . . 4 - 95
Replacement . . . . . 4 - 97
Caster Brake . . . . . 4 - 99
Adjustment . . . . . 4 - 99
Hydraulic Cylinder . . . . . 4 - 100
Removal . . . . . 4 - 100
Replacement . . . . . 4 - 101
Adjustment . . . . . 4 - 103
Side Pedals Only . . . . . 4 - 103
Foot End Pedals Only . . . . . 4 - 104
Side and Foot Pedals. . . . . 4 - 104

Steering Plus™ Steering System Assembly (Old Style) . . . . . 4 - 105
Removal . . . . . 4 - 105
Replacement . . . . . 4 - 106
Adjustment . . . . . 4 - 106
Steering Plus™ Steering System Assembly (New Style). . . . . 4 - 108
Removal . . . . . 4 - 108
Replacement . . . . . 4 - 109

4

Introduction

Upon completion of any maintenance procedure, perform the “Procedural Stretcher Function Checks” on page 2-6, “Fixed Height Stretcher Function Checks” on page 2-10, “Trauma Stretcher Function Checks” on page 2-12, “Surgical Stretcher Function Checks” on page 2-16, “OB/GYN Stretcher Function Checks” on page 2-20, or “Electric Stretcher Function Checks” on page 2-25 to ensure proper operation of the TranStar® PC-100/PC-200/ PC-300/PC-350/PC-400/PC-450/PC-500/PC-550 Series Stretcher.

4.1 PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN Stretcher Siderail

Tools required: Ratchet ½" socket
½" open end wrench Torque wrench 0-250 in-lb

Removal

1. Lower the siderail.

2. Using the ½" open end wrench, the ratchet, and the ½" socket, remove the two swing pivot nuts (C) and washers (E) from the swing pivot bolts (A) that secure the siderail to the swing arms (D) (see figure 4-1 on page 4-7) or (see figure 4-2 on page 4-8).

Figure 4-1. PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical Stretcher Siderail

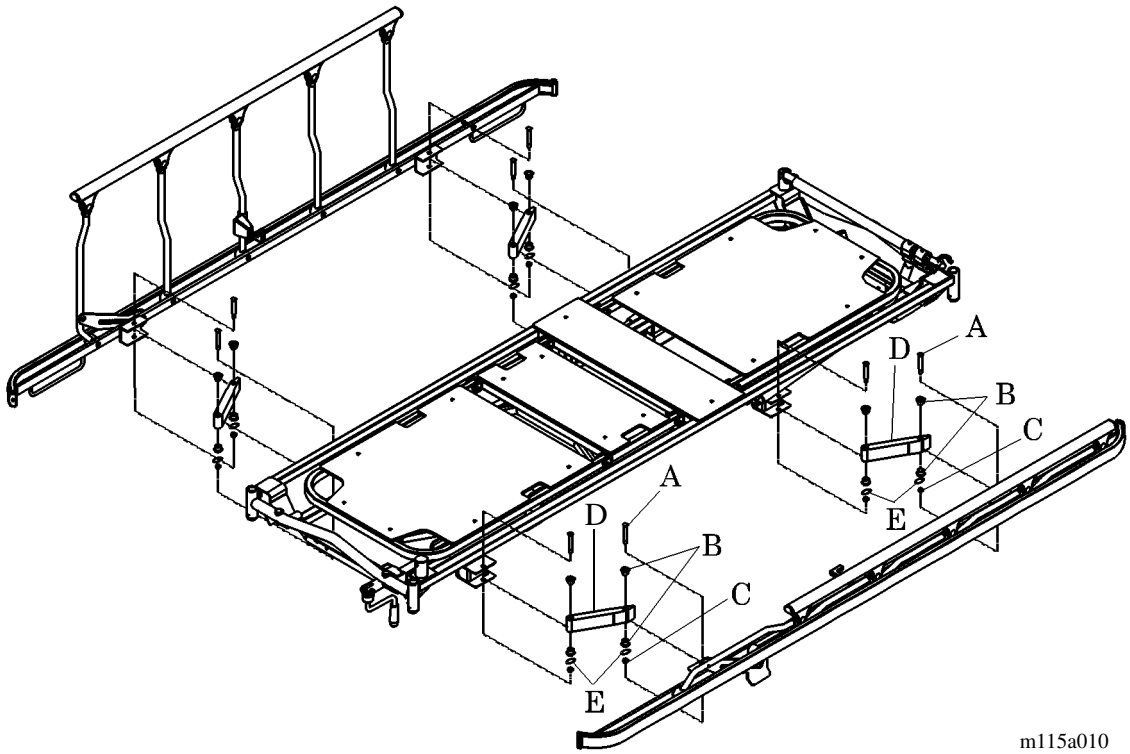
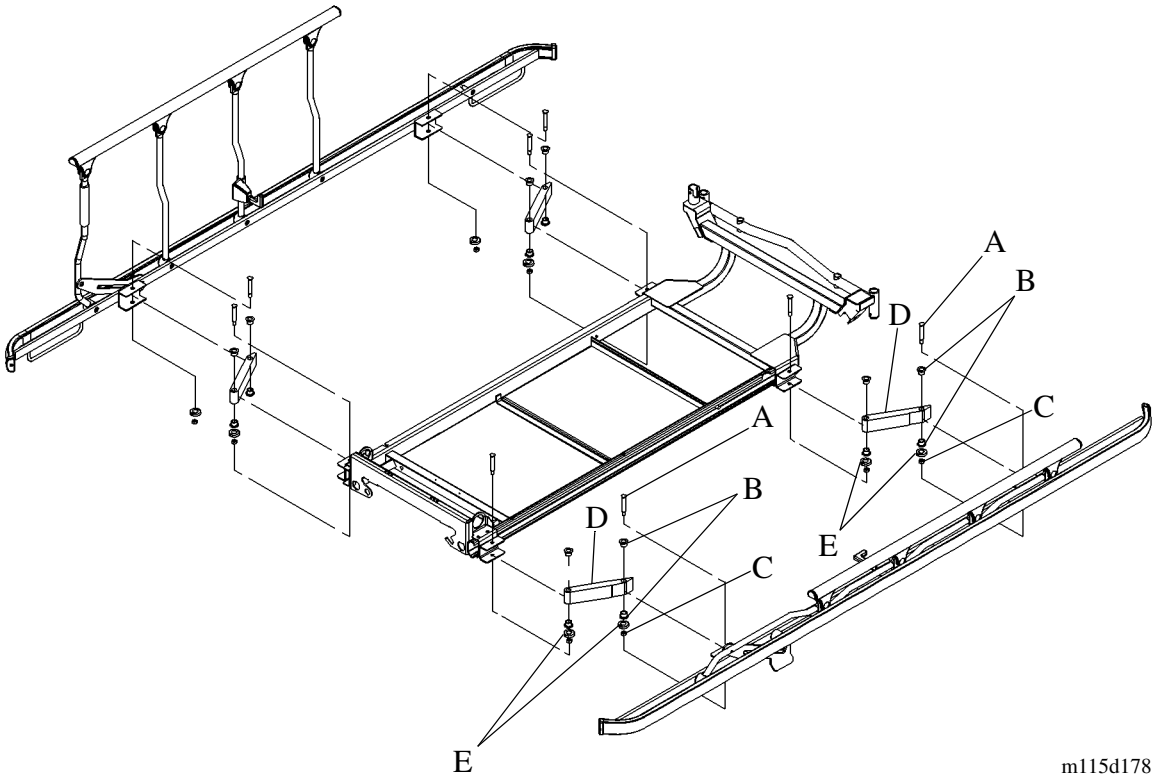


Figure 4-2. OB/GYN Stretcher Siderail



CAUTION:
Ensure that the siderail is supported on both ends. Damage to the siderail bracket can occur if one end drops, and the other end is positioned in the siderail bracket.

3. Support the siderail, and remove the swing pivot bolts (A).
4. Remove the siderail from the swing arms (D).
5. Remove the four Oilite®[1] bushings (B) from the swing arms (D).

Replacement

1. Install the two Oilite® bushings (B) on each swing arm (D).
2. Align the siderail swing arm bracket with the swing arm (D).
3. Insert the swing pivot bolts (A) through the siderail bracket and swing arm (D).

1. Oilite® is a registered trademark of Beemer Precision, Inc.

4. Using the ½" open end wrench, the ratchet, and the ½" socket, install a swing pivot nut (C) and washer (E) on each swing pivot bolt (A).

5. Using the torque wrench, torque the nuts (C) to 40 ± 6 in-lb (4.5 ± 0.7 N·m).

CAUTION:
Ensure that the force required to move the siderails of an OB/GYN Stretcher from the stored position is not great enough to give the impression that the carriage, when moved into the exam position, is at full travel when the cattle catchers contact the siderail swing arms. Failure to do so could result in equipment damage.

6. Check the amount of force required to store the siderails.

NOTE:
If the force required is too excessive or too easy, adjust the torque on the pivot bolts until the desired force is obtained.

4.2 Switching the PC-300–PC-550 Procedural/Fixed Height/ Trauma Stretcher Siderail to the Opposite Side of the Stretcher

Tools required:	Ratchet	T30 Torx®[1] head bit
	½" socket	Torque wrench 0-250 in-lb
	½" open end wrench	Drill
	Hammer	3/16" drill bit
	1/8" pin punch	

CAUTION:
Do not attempt to switch the siderails on the electric stretcher. Equipment damage can occur.

The gap at the head or foot end of the siderail can be switched to the opposite end of the stretcher by switching the siderails to the opposite side of the stretcher

1. Remove both siderails from the stretcher (refer to procedure 4.1).

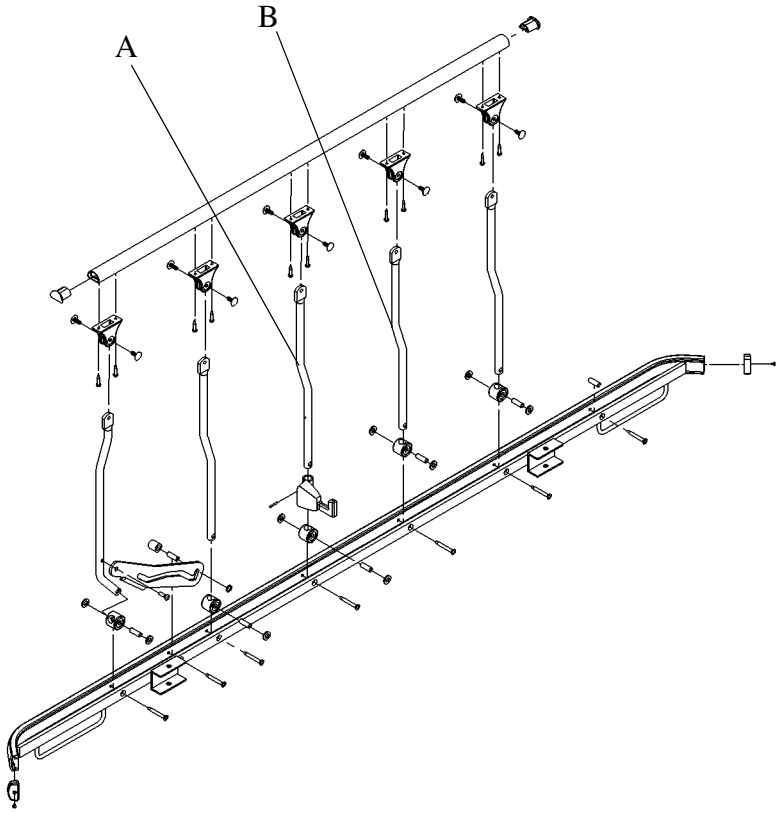
2. Switch the transfer stop tube (A) and the common tube (B) to allow for proper operation of the transfer stop (see figure 4-3 on page 4-11). For tube removal and installation, refer to procedure 4.8.

3. Install the siderails on the opposite side of the stretcher (refer to procedure 4.1).

4. Check the amount of force required to store the siderails.
   - If the force required is excessive, loosen the swing arm pivot bolts (see figure 4-1 on page 4-7).
   - If the force required is too easy, tighten the swing arm pivot bolts.

1. Torx® is a registered trademark of Textron, Inc.

Figure 4-3. Siderail Tube Identification



m115_011

4.3 Electric Stretcher Siderail

Tools required:

Ratchet	T25 Torx®[1] head bit
½" socket	Torque wrench 0-250 in-lb
½" open end wrench	5/16" Allen™[2] wrench
Side cutters	

Removal

NOTE:
The electric stretcher has two versions of siderail cable assemblies.

The first type has an electrical connector along the bottom rail.

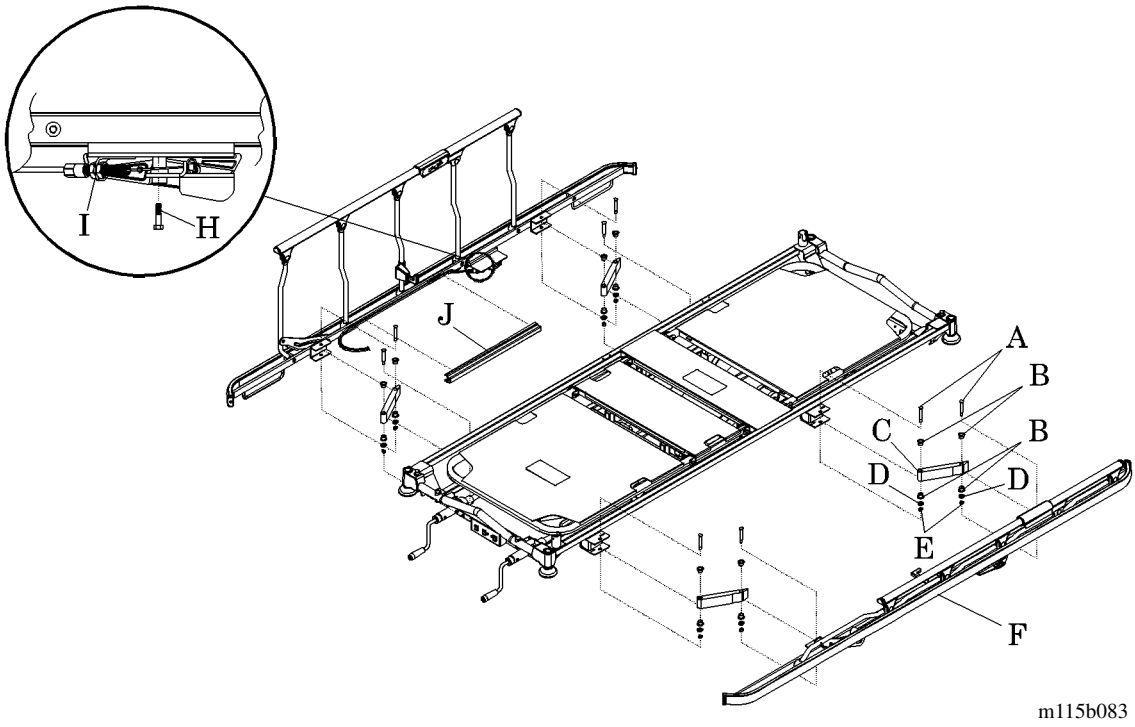
The second type is routed directly to the electric box without an electrical connector along the bottom rail. All replacement siderails will be of this type.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.
2. Remove the snap wire cover (J) from the bottom rail (F) (see figure 4-4 on page 4-13).
3. Record the wiring orientation at the bottom of the siderail. This will aid in the installation.
4. Lower the head and knee sections to the full flat position.
5. Using the 5/16" Allen™ wrench, remove the shoulder bolt (H).
6. Using the ½" open end wrench, remove the cable adjusting nut (I).
7. Cut the wire ties (M) that secure the cable assembly (K) and the CPR cable (L) along the upper frame assembly (see figure 4-5 on page 4-14).
8. Using the ratchet and the T25 Torx® head bit, remove the two screws (P) and cable clamps (N) along the upper frame assembly.

1. Torx® is a registered trademark of Textron, Inc.
2. Allen™ is a trademark of Industrial Fasteners, Inc.

Figure 4-4. Electric Stretcher Siderail



9. Raise the head section of the stretcher. Using the ratchet and the T25 Torx® head bit, remove the two screws (S) and lockwashers (R) that secure the electrical box cover.

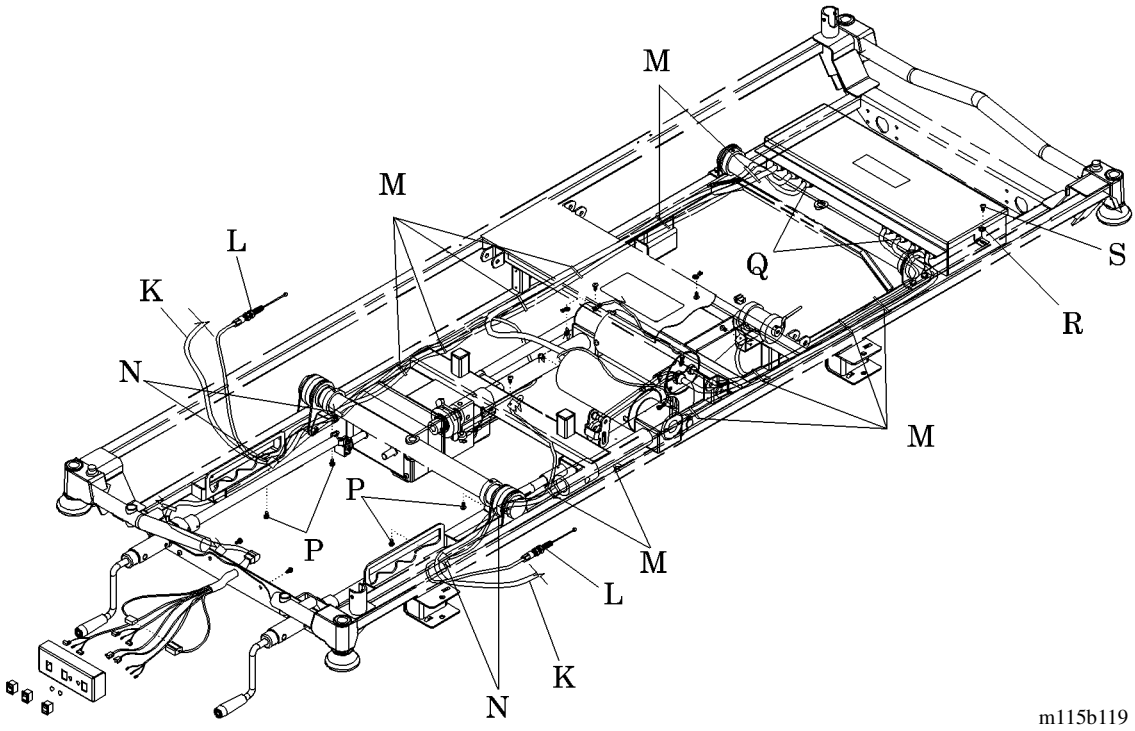
10. Using the ½" open end wrench, loosen the strain relief nut (Q) at the electric box that secures the siderail cable assembly.

11. Remove the left siderail wiring assembly connector (A) from P2 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

12. Remove the right siderail wiring assembly connector (F) from P3 on the control board (H).

13. Pull the cable assembly (K) and connector through the strain relief nut (Q) (see figure 4-5 on page 4-14).

Figure 4-5. Electric Stretcher Siderail Cable Routing



14. Using the ½" open end wrench, the ratchet, and the ½" socket, remove the two swing pivot nuts (E) and washers (D) from the swing pivot bolts (A) that secure the siderail to the swing arms (C) (see figure 4-4 on page 4-13).

CAUTION:
Ensure that the siderail is supported on both ends. Damage to the siderail bracket can occur if one end drops, and the other end is positioned in the siderail bracket.

15. Support the siderail, and remove the swing pivot bolts (A).

16. Remove the siderail (F) from the swing arms (C).

17. Remove the four Oilite®[1] bushings (B) from the swing arms (C).

Replacement

1. Install the four Oilite® bushings (B) on each swing arm (C).

1. Oilite® is a registered trademark of Beemer Precision, Inc.

2. Align the siderail swing arm bracket with the swing arm (C).

3. Insert the swing pivot bolts (A) through the siderail bracket and swing arm (C).

4. Using the ½" open end wrench, the ratchet, and the ½" socket, install a swing pivot nut (E) and washer (D) on each swing pivot bolt (A).

5. Using the torque wrench, torque the nuts (E) to 40 $\pm$ 6 in-lb (4.5 $\pm$ 0.7 N·m).

6. Check the amount of force required to store the siderails.

NOTE:
If the force required is too excessive or too easy, adjust the torque on the pivot bolts until the desired force is obtained.

7. Place the CPR cable (L) in position (see figure 4-5 on page 4-14), and loosely install the cable adjusting nut (I) (see figure 4-4 on page 4-13). Make sure the cable and ball are properly seated in the CPR handle weldment.

8. Using the 5/16" Allen™ wrench, install the shoulder bolt (H) that secures the CPR handle weldment.

9. Adjust the cable adjusting nut (I) on the threaded stud such that the handle on the CPR handle weldment just touches the plastic CPR handle when the CPR latch is fully extended.

10. Pull the siderail cable assembly (K) and connector through the strain relief nut (Q) (see figure 4-5 on page 4-14).

11. Connect the left siderail cable assembly connector (A) to P2 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

12. Connect the right siderail cable assembly connector (F) to P3 on the control board (H).

13. Using the ½" open end wrench, tighten the strain relief nut (Q) at the electric box that secures the siderail cable assembly (see figure 4-5 on page 4-14).

14. Using the ratchet and the T25 Torx® head bit, install the two screws (S) and lockwashers (R) that secure the electrical box cover.

15. Using the ratchet and the T25 Torx® head bit, install the two screws (P) and cable clamps (N) along the upper frame assembly.

16. Install the wire ties (M) that secure the siderail cable assembly (K) and the CPR cable (L) along the upper frame assembly.

17. Install the snap wire cover (J) (see figure 4-4 on page 4-13).

18. Cycle the siderail from the stored to the up position several times. Plug the stretcher into an appropriate source, and test for proper operation.

4.4 PC-100/PC-200 Procedural Stretcher Siderail Latch

Tools required: Ratchet T30 Torx®[1] head bit
Torque wrench 0-250 in-lb

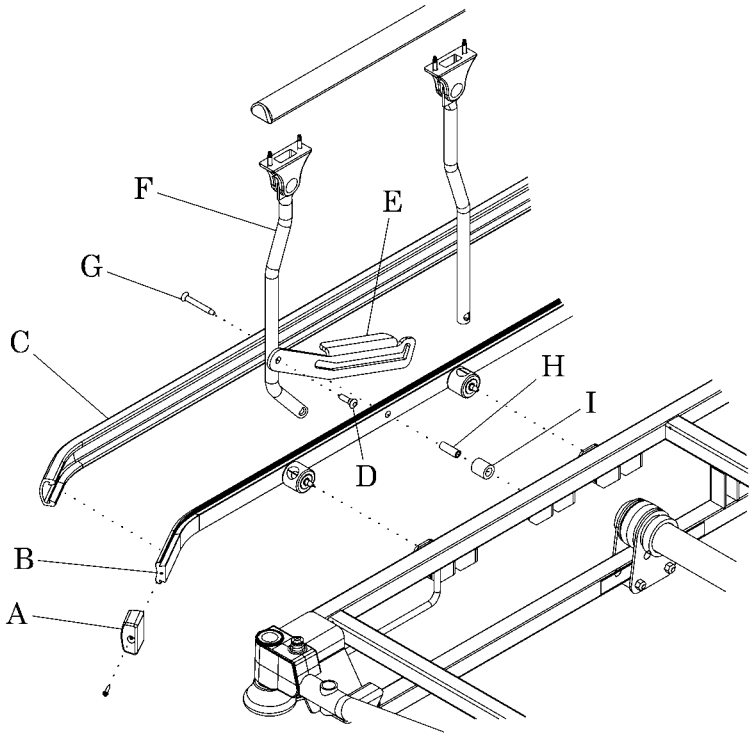
Removal

1. Remove the bottom rail end caps (A) from the bent bottom rail extension (B).

2. Remove the side rail trim strip (C) from the bent bottom rail extension (B).

3. Using the ratchet and the T30 Torx® head bit, remove and discard the latch shoulder bolt (D) that secures the latch (E) to the end tube (F) (see figure 4-6 on page 4-17).

Figure 4-6. PC-100/PC-200 Procedural Stretcher Siderail Latch



m115e223

4. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (G), roller guide (H), latch bushing (I), and latch (E) from the rail assembly. Discard the lower pivot bolt and any damaged parts.

1. Torx® is a registered trademark of Textron, Inc.

Replacement

1. Align the latch (E), the roller guide (H), and the latch bushing (I) with the bolt holes in the bent bottom rail extension (B) and the upper frame.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

2. Insert the **new** lower pivot bolt (G) through them and turn it by hand.

3. Using the ratchet and the T30 Torx® head bit, carefully tighten the new lower pivot bolt (G) to secure the latch (E) to the siderail.

4. Using the torque wrench, torque the lower pivot bolt (G) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).

CAUTION:
The latch shoulder bolt has self-tapping threads. Ensure that you use a new latch shoulder bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

5. Insert the **new** latch shoulder bolt (D) through the end tube (F), and turn it by hand.

6. Using the ratchet and the T30 Torx® head bit, tighten the new latch shoulder bolt (D) to secure the latch (E) to the end tube (F).

7. Using the torque wrench, torque the latch shoulder bolt (D) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).

8. Install the siderail trim strip (C) onto the bent bottom rail extension (B).

9. Install the bottom rail end caps (A) onto the bent bottom rail extension (B).

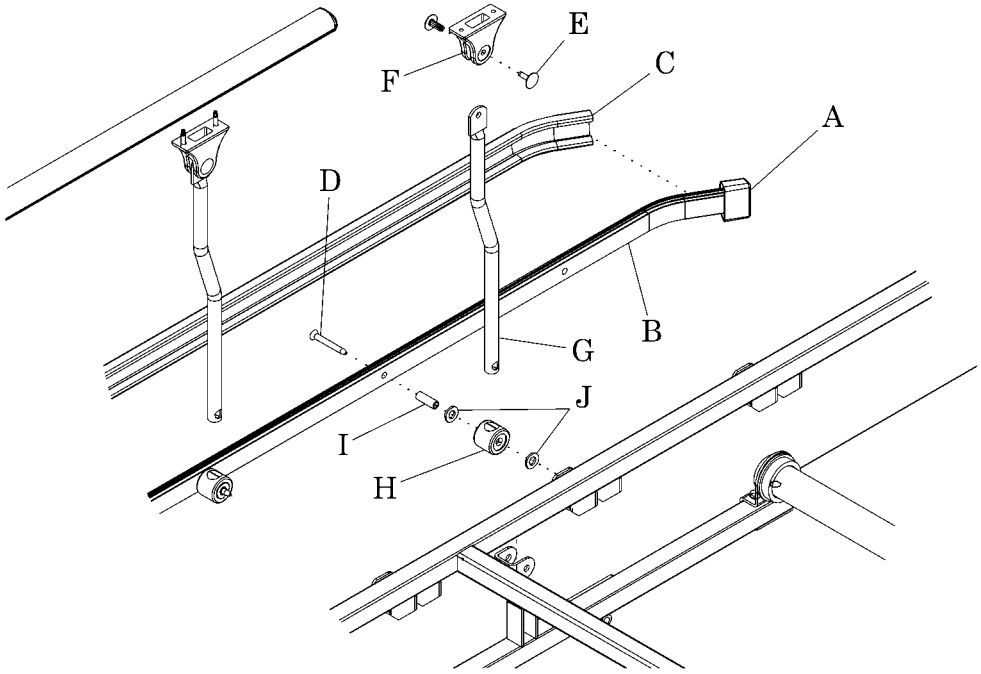
4.5 PC-100/PC-200 Procedural Stretcher Siderail Tube

Tools required:	Ratchet	T30 Torx®[1] head bit
	Torque wrench 0-250 in-lb	Drill
	3/16" drill bit	Hammer
	1/8" pin punch	

Removal

1. Remove the bottom rail end caps (A) from the bent bottom rail extension (B) (see figure 4-7 on page 4-19).

Figure 4-7. PC-100/PC-200 Procedural Stretcher Siderail Tube



2. Remove the siderail trim strip (C) from the bent bottom rail extension (B).

3. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (D), the two wave washers (J), the roller guide (I), and the lower pivot block (H) from the siderail tube (G) that needs to be replaced. Discard the lower pivot bolt.

1. Torx® is a registered trademark of Textron, Inc.

CAUTION:
Do not use a screwdriver to remove the top rail ratchet rivet. The upper pivot bracket is made of plastic. Damage to the bracket could occur.

4. Using the drill and 3/16" drill bit, drill through the two top rail ratchet rivets (E). Remove the rivets from the upper pivot (F), and discard them.

5. Remove and discard the siderail tube (G).

Replacement

1. Insert the new siderail tube (G) into the lower pivot block (H).

2. Align the roller guide (I), the lower pivot block (H), the two wave washers (J), and the siderail tube (G) with the bolt holes in the bent bottom rail extension (B) and the upper frame.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

3. Using the ratchet and the T30 Torx® head bit, carefully install a **new** lower pivot bolt (D) to secure the end tube to the bottom rail.

4. Using the torque wrench, torque the lower pivot bolt (D) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).

5. Install the new siderail tube into the upper pivot (F).

6. Install the new ratchet rivets (E) into the upper pivot (F).

7. Install the siderail trim strip (C) onto the bent bottom rail extension (B).

8. Install the bottom rail end caps (A) onto the bent bottom rail extension (B).

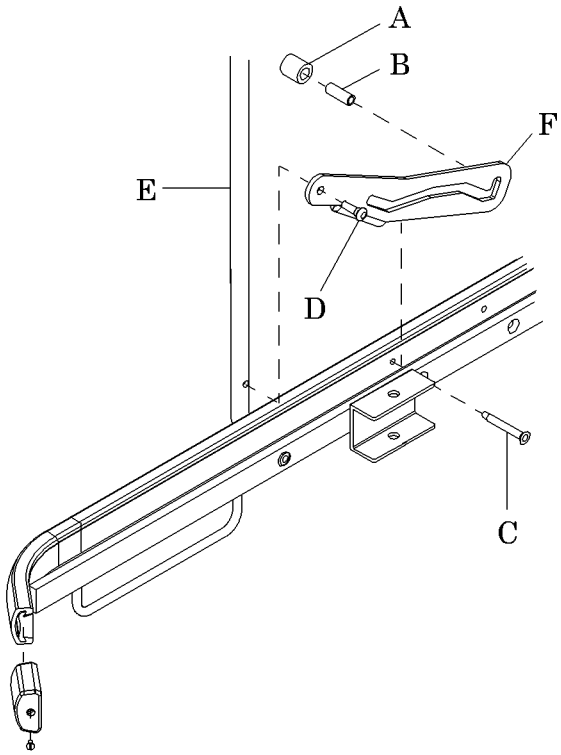
4.6 PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Siderail Latch

Tools required: Ratchet
T30 Torx®[1] head bit
Torque wrench 0-250 in-lb

Removal

1. Using the ratchet and the T30 Torx® head bit, remove the latch shoulder bolt (D) that secures the latch plate (F) to the end tube (E) (see figure 4-8 on page 4-21).

Figure 4-8. Siderail Latch



2. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (C), roller guide (B), latch bushing (A), and latch plate (F) from the rail assembly. Discard the lower pivot bolt and any damaged parts.

Replacement

1. Align the latch plate (F), the roller guide (B), and the latch bushing (A) with the bolt holes in the rail assembly.

1. Torx® is a registered trademark of Textron, Inc.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

2. Using the ratchet and the T30 Torx® head bit, carefully install a **new** lower pivot bolt (C) to secure the latch plate (F) to the siderail.

3. Using the torque wrench, torque the lower pivot bolt (C) to 140 ± 10 in-lb (15.8 ± 1.1 N·m).

CAUTION:
The latch shoulder bolt has self-tapping threads. Ensure that you use a new latch shoulder bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

4. Using the ratchet and the T30 Torx® head bit, install a **new** latch shoulder bolt (D) to secure the latch plate (F) to the end tube (E).

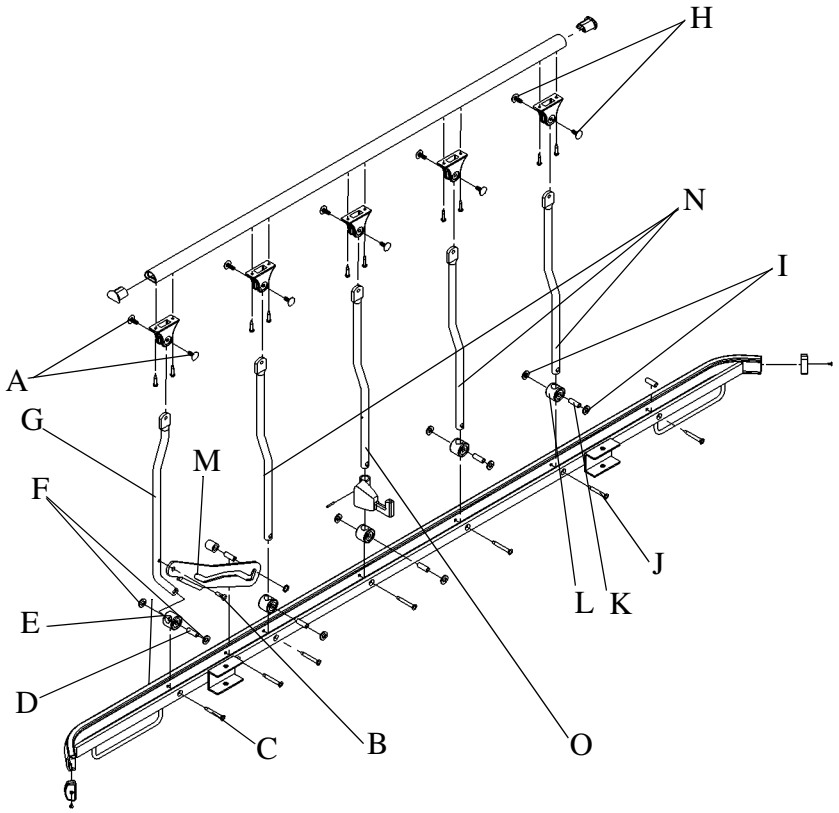
5. Using the torque wrench, torque the latch shoulder bolt (D) to 140 ± 10 in-lb (15.8 ± 1.1 N·m).

4.7 PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Siderail End Tube

Tools required:	Ratchet	T30 Torx®[1] head bit
	Torque wrench 0-250 in-lb	Drill
	3/16" drill bit	Hammer
	1/8" pin punch	

The TranStar® PC-300–PC-550 Procedural, Fixed Height, Trauma, and Surgical Stretcher siderails have three types of siderail tubes: one end tube (G), one transfer stop tube (O), and three common tubes (N). The Surgical Stretcher bottom rail is straight at the foot end. The OB/GYN Stretcher siderail has only two common tubes (N). The Electric Stretcher siderail replaces one common tube with an upright tube (P) containing the cable assembly (see figure 4-9 on page 4-23) or (see figure 4-10 on page 4-24) or (see figure 4-11 on page 4-24).

Figure 4-9. PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical Stretcher Siderail Tubes



m115_011

1. Torx® is a registered trademark of Textron, Inc.

Figure 4-10. OB/GYN Stretcher Siderail Tubes

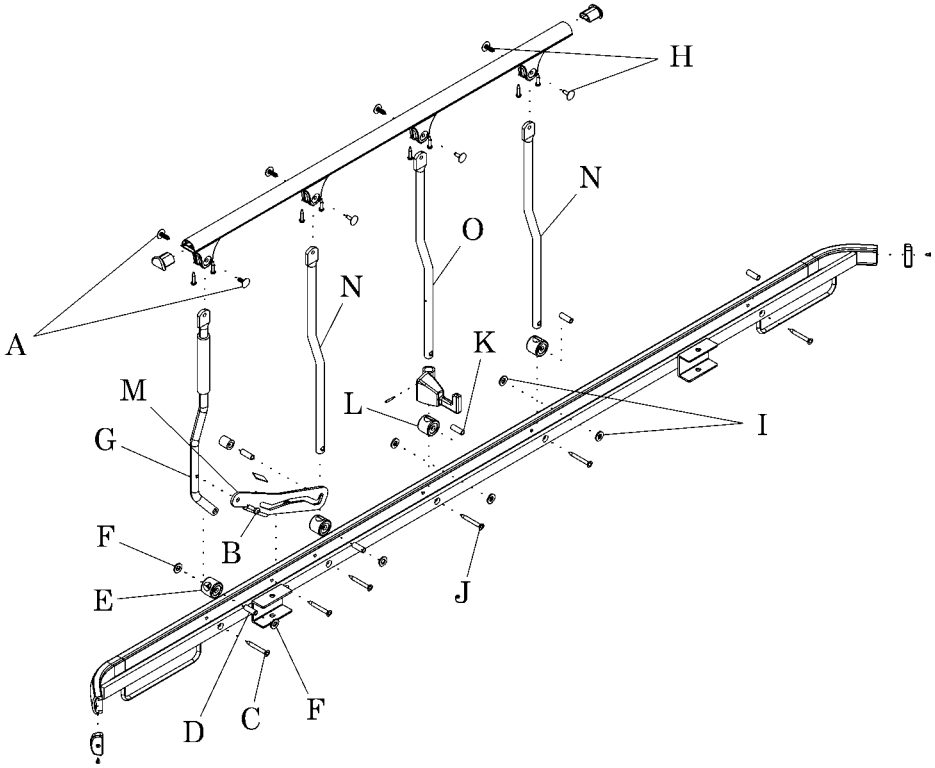
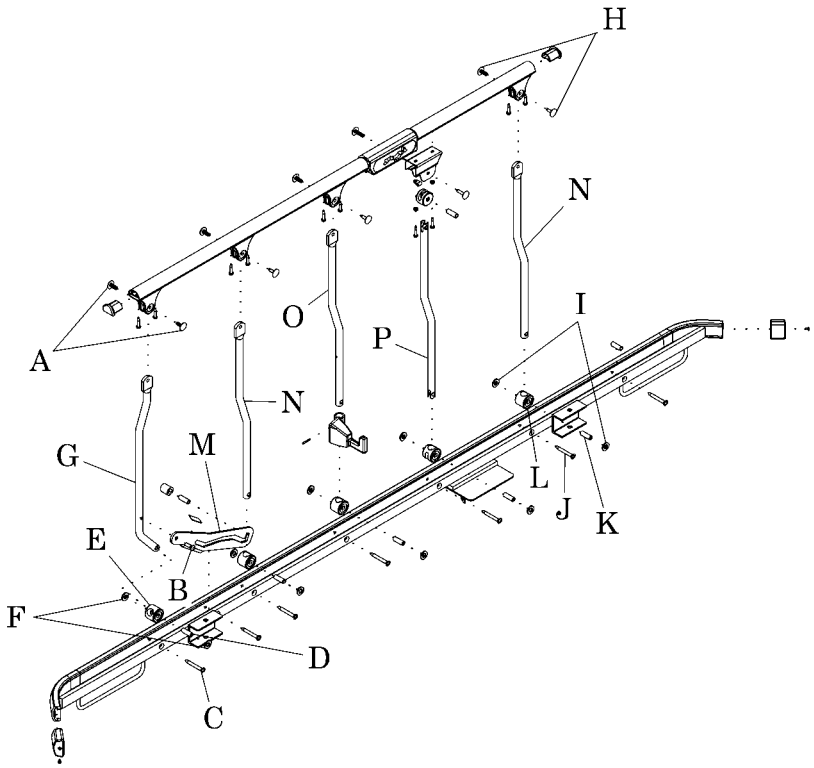


Figure 4-11. Electric Stretcher Siderail Tubes



Removal

1. Using the ratchet and the T30 Torx® head bit, remove the latch shoulder bolt (B) that attaches the latch (M) to the end tube (G).

CAUTION:
Do not use a screwdriver to remove the top rail ratchet rivet. The upper pivot bracket is made of plastic. Damage to the bracket could occur.

2. Using the drill and 3/16" drill bit, drill through the two top rail ratchet rivets (A). Remove the rivets (A).
3. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (C) that secures the end tube (G) to the bottom rail.
4. Remove the end tube (G), roller guide (D), lower pivot block (E), and the two wave washers (F) from the siderail assembly.

Replacement

1. Align the roller guide (D), the lower pivot block (E), the two wave washers (F), and the end tube (G) with the bolt holes in the bottom rail.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

2. Using the ratchet and the T30 Torx® head bit, carefully install a **new** lower pivot bolt (C) to secure the end tube (G) to the bottom rail.
3. Using the torque wrench, torque the lower pivot bolt (C) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).
4. Install two **new** top rail ratchet rivets (A) to secure the end tube (G) to the upper pivot bracket.

CAUTION:
The latch shoulder bolt has self-tapping threads. Ensure that you use a new latch shoulder bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

5. Using the ratchet and the T30 Torx® head bit, install a **new** latch shoulder bolt (B) to secure the latch (M) to the end tube (G).
6. Using the torque wrench, torque the latch shoulder bolt (B) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).

4.8 PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Siderail Transfer Stop/Common Tube

Tools required:	Ratchet	T30 Torx®[1] head bit
	Torque wrench 0-250 in-lb	Drill
	3/16" drill bit	Hammer
	1/8" pin punch	

Removal

CAUTION:
Do not use a screwdriver to remove the top rail ratchet rivet. The upper pivot bracket is made of plastic. Damage to the bracket could occur.

1. Using the 3/16" drill bit, drill a hole through the two top rail ratchet rivets (H). Remove the rivets (see figure 4-9 on page 4-23).

2. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (J) that secures the common tube (N) to the bottom rail.

3. Remove the common tube (N), roller guide (K), lower pivot block (L), and the two wave washers (I) from the siderail assembly.

Replacement

1. Align the roller guide (K), the lower pivot block (L), the two wave washers (I), and the tube with the bolt holes in the bottom rail.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

2. Using the ratchet and the T30 Torx® head bit, carefully install a **new** lower pivot bolt (J) to secure the tube to the bottom rail.

3. Using the torque wrench with the T30 Torx® head bit, torque the lower pivot bolt (J) to 140 $\pm$ 10 in-lb (15.8 $\pm$ 1.1 N·m).

4. Install two **new** ratchet rivets (H) to secure the common tube (N) to the top rail.

1. Torx® is a registered trademark of Textron, Inc.

4.9 OB/GYN Stretcher Patient Grip Handle

Tools required:	Ratchet	T30 Torx®[1] head bit
	Torque wrench 0-250 in-lb	Drill
	3/16" drill bit	Hammer
	1/8" pin punch	

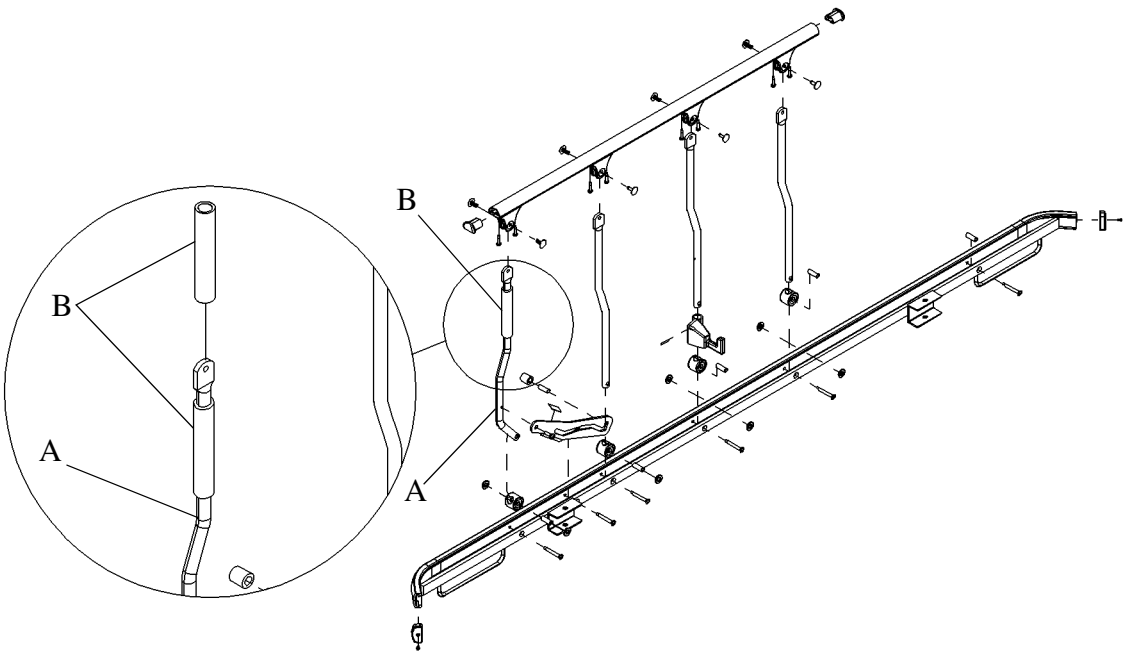
Removal

1. Complete end tube removal step 1 and step 2 of procedure 4.7).

2. To ensure easy access to the patient grip handle, slightly angle the end tube (A) toward the foot end of the bed (see figure 4-12 on page 4-27).

3. Remove the damaged patient grip handle (B) from the end tube (A).

Figure 4-12. Patient Grip Handle



m115d176

1. Torx® is a registered trademark of Textron, Inc.

Replacement

1. Install the replacement patient grip handle (B) by gently sliding it onto the end tube (A).

NOTE:
You may have to rotate the patient grip handle in opposite directions to ease the installation process.

2. Complete end tube replacement step 4 through step 6 of procedure 4.7).

3. Ensure all siderail functions operate properly.

4.10 Electric Stretcher Left/Right Siderail Cable Assembly and Upright Tube

Tools required:		
	Ratchet	½" socket
	T30 Torx®[1] head bit	Hammer
	T25 Torx® head bit	1/8" pin punch
	½" open end wrench	Drill
	Torque wrench 0-250 in-lb	3/16" drill bit

Removal

NOTE:
The electric stretcher has two versions of siderail cable assemblies that are interchangeable.

The first type has an electrical connector along the bottom rail.

The second type is routed directly to the electric box without an electrical connector along the bottom rail. All replacement siderail cable assemblies will be of this type.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.
2. Remove the snap wire cover (J) from the bottom rail (F) (see figure 4-4 on page 4-13).
3. Record the wiring orientation at the top and bottom of the siderail. This will aid in the installation.
4. Cut the wire ties (M) that secure the cable assembly (K) and the CPR cable (L) along the upper frame assembly (see figure 4-5 on page 4-14).
5. Using the ratchet and the T25 Torx® head bit, remove the two screws (P) and cable clamps (N) along the upper frame assembly.
6. Raise the head section of the stretcher. Using the ratchet and the T25 Torx® head bit, remove the two screws (S) and lockwashers (R) that secure the electrical box cover.

1. Torx® is a registered trademark of Textron, Inc.

7. Using the ½" open end wrench, loosen the strain relief nut (Q) at the electric box that secures the siderail cable assembly.

8. Remove the left siderail wiring assembly connector (A) from P2 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

9. Remove the right siderail wiring assembly connector (F) from P3 on the control board (H).

10. Pull the cable assembly (K) and connector through the strain relief nut (Q) (see figure 4-5 on page 4-14).

11. Using a T25 Torx® head bit and ratchet, remove the two screws (N) that secure the cover housing (O) under the patient control switch (R). Remove the cover housing, and disconnect the connector (see figure 4-13 on page 4-31).

12. Remove the screw (M) and washer (P) holding the cable clamp (Q) around the cable assembly (L).

CAUTION:
Do not use a screwdriver to remove the top rail ratchet rivet. The upper pivot bracket is made of plastic. Damage to the bracket could occur.

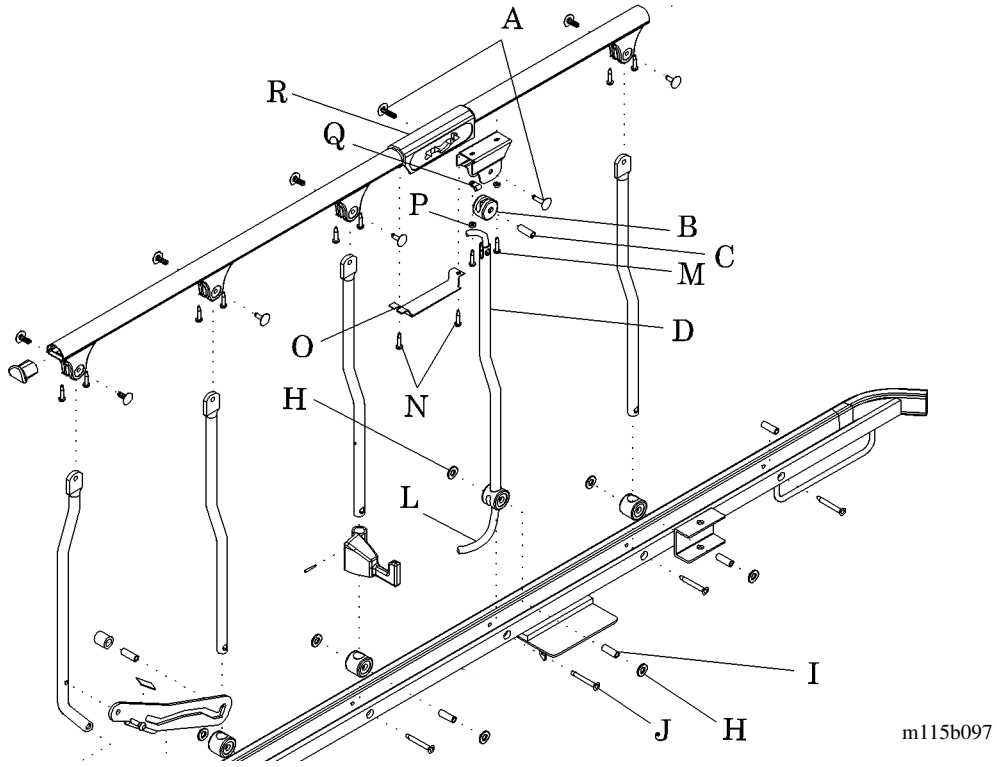
13. Using the 3/16" drill bit, drill a hole through the two top rail ratchet rivets (A). Remove the rivets.

14. Remove the upper roller guide (C) and the plastic upper pivot (B) from the top of the upright tube (D).

15. Using the ratchet and the T30 Torx® head bit, remove the lower pivot bolt (J) that secures the upright tube (D) to the bottom rail.

16. Remove the cable assembly (L) with upright tube (D), roller guide (I), and the two wave washers (H) from the siderail assembly.

Figure 4-13. Electric Stretcher Left/Right Siderail Cable Assembly and Upright Tube



Replacement

1. Install the upper roller guide (C) and the plastic upper pivot (B) on the top of the upright tube (D) (see figure 4-13 on page 4-31).

NOTE:
Make sure the wiring is in the proper orientation, as recorded in step 3 above.

2. Align the roller guide (I), the two wave washers (H), and the upright tube (D) with the bolt holes in the bottom rail.

CAUTION:
The lower pivot bolt has self-tapping threads. Ensure that you use a new lower pivot bolt for the installation procedure, and hand start it. Failure to do so could result in damage to the bolt hole threads.

3. Using the ratchet and the T30 Torx® head bit, carefully install a **new** lower pivot bolt (J) to secure the tube to the bottom rail.

4. Using the torque wrench with the T30 Torx® head bit, torque the lower pivot bolt (J) to 140 ± 10 in-lb (15.8 ± 1.1 N·m).

5. Align the upper roller guide (C) and the plastic upper pivot (B) with the hole in the upper pivot.

6. Install the two **new** ratchet rivets (A) to secure the upright tube (D) to the upper pivot on the top rail.

7. Connect the wire connector at the patient control switch (R).

8. Install the screw (M) and washer (P) with the cable clamp (Q) that secures the electric wire. Make sure the individual wires will not be seen once the cover housing (O) is installed.

9. Using a T30 Torx® head bit and ratchet, install the two screws (N) that secure the cover housing (O) to the patient control switch (R).

10. Pull the siderail cable assembly (K) and connector through the strain relief nut (Q) (see figure 4-5 on page 4-14).

11. Connect the left siderail wiring assembly connector (A) to P2 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

12. Connect the right siderail wiring assembly connector (F) to P3 on the control board (H).

13. Using the ½" open end wrench, tighten the strain relief nut (Q) at the electric box that secures the siderail cable assembly (see figure 4-5 on page 4-14).

14. Using the ratchet and the T25 Torx® head bit, install the two screws (S) and lockwashers (R) that secure the electrical box cover.

15. Using the ratchet and the T25 Torx® head bit, install the two screws (P) and cable clamps (N) along the upper frame assembly.

16. Install the wire ties (M) that secure the cable assembly (K) and the CPR cable (L) along the upper frame assembly.

17. Install the snap wire cover (J) (see figure 4-4 on page 4-13).

18. Cycle the siderail from the stored to the up position several times. Plug the stretcher into an appropriate source, and test for proper operation.

4.11 Electric Stretcher Patient Control Switch

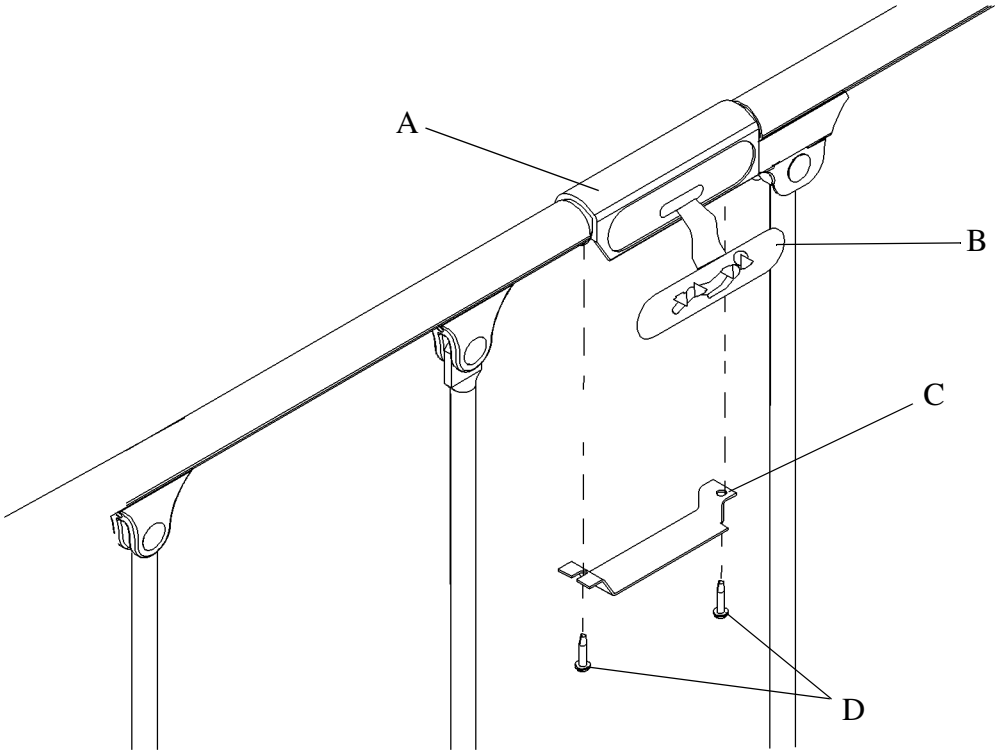
Tools required: T25 Torx®[1] head bit Ratchet

Removal

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.
2. Using a T25 Torx® head bit and ratchet, remove the two screws (D) that secure the cover housing (C) under the patient control unit (A) (see figure 4-14 on page 4-33).
3. Remove the cover housing (C), and disconnect the patient control switch connector.

Figure 4-14. Electric Stretcher Patient Control Switch



m115a080

1. Torx® is a registered trademark of Textron, Inc.

4. Peel the patient control switch (B) off the patient control unit (A) by peeling from one of the edges.

Replacement

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Clean any adhesive left on the patient control unit (A).

2. Remove the adhesive backing off of the new patient control switch.

NOTE:
Position the patient control switch so the picture of the head is at the head end of the stretcher.

3. Insert the wiring of the new patient control switch (B) through the patient control unit (A), and press the switch into position.

4. Connect the patient control switch (B) to the connector.

5. After the switch installation is complete, place the cover housing (C) into position, and fasten it with the two screws (D).

6. Plug the stretcher into an appropriate power source, and check for proper operation.

4.12 Electric Stretcher Nurse Control Switch

Tools required: T25 Torx®[1] head bit Ratchet

Removal

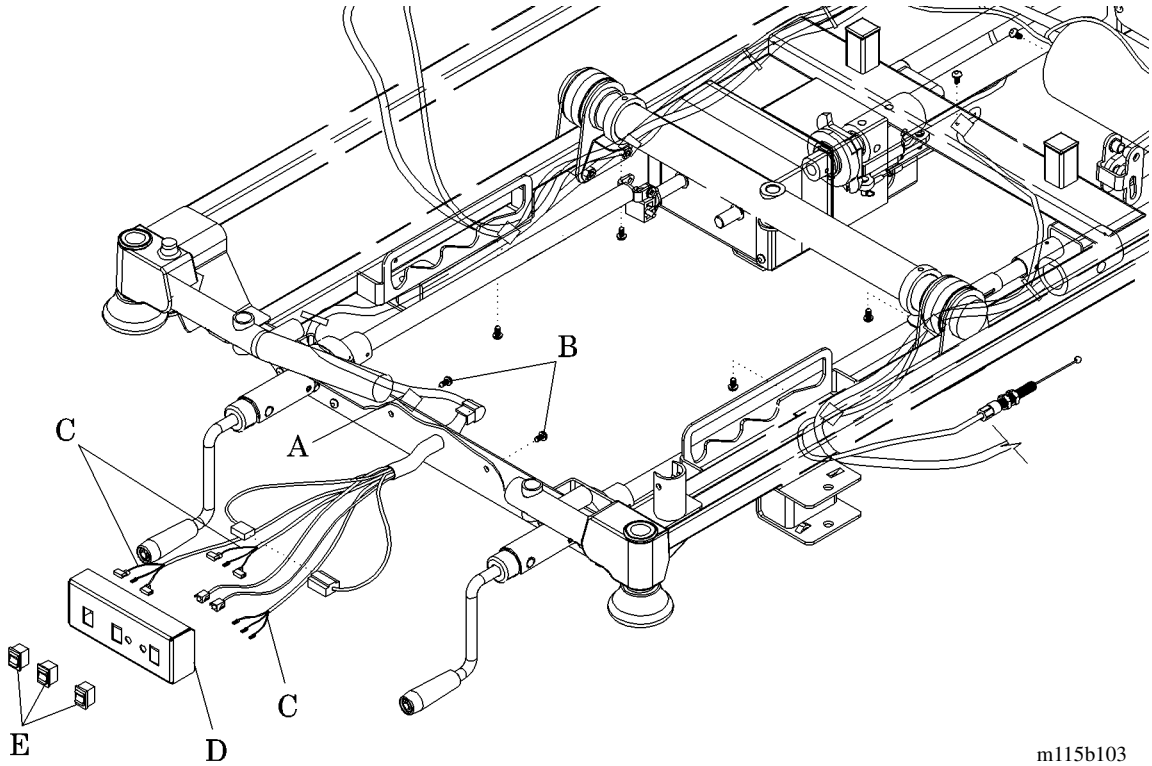
SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.

2. Using the ratchet and the T25 Torx® head bit, remove the two screws (B) and cable clamp (A) that secure the nurse control unit (D) to the frame (see figure 4-15 on page 4-35).

3. Record the wiring orientation at the defective switch. This will aid in the installation.

Figure 4-15. Electric Stretcher Nurse Control Switch



1. Torx® is a registered trademark of Textron, Inc.

CAUTION:
Use care when removing the individual nurse control switch wires. Damage to the terminals could occur if care is not used.

4. Remove the nurse control unit (D), and remove the individual nurse control switch wires (C) from the defective switch.

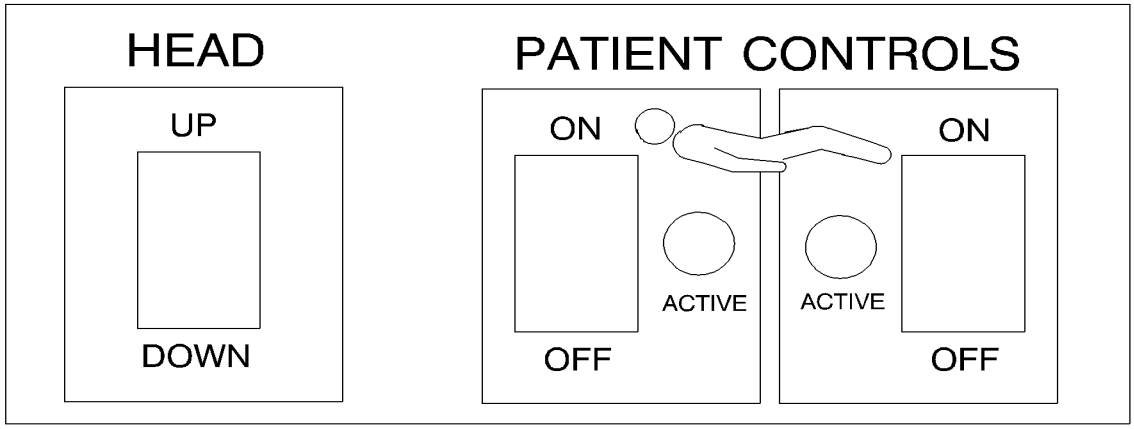
5. Squeeze the inside grips and pop the switch (E) from the faceplate to remove any defective nurse control switch (two types).

Replacement

1. Press the new switch (E) into the opening on the faceplate of the nurse control unit (D) to replace any defective nurse control switch.

2. Connect the individual nurse control switch wires (C) (see figure 4-15 on page 4-35) to the new switch as shown (see figure 4-16 on page 4-36).

Figure 4-16. Electric Stretcher Nurse Control Switch Wire Diagram



3. To attach the nurse control unit (D) to the frame, secure the unit with the two screws (B) and the cable clamp (A) (see figure 4-15 on page 4-35).

4. Plug the stretcher into an appropriate power source, and check for proper operation.

4.13 Electric Stretcher Control Board

Tools required: T25 Torx®[1] head bit Ratchet
Side cutters

Removal

1. Raise and secure the head section of the stretcher to gain access to the electric box.

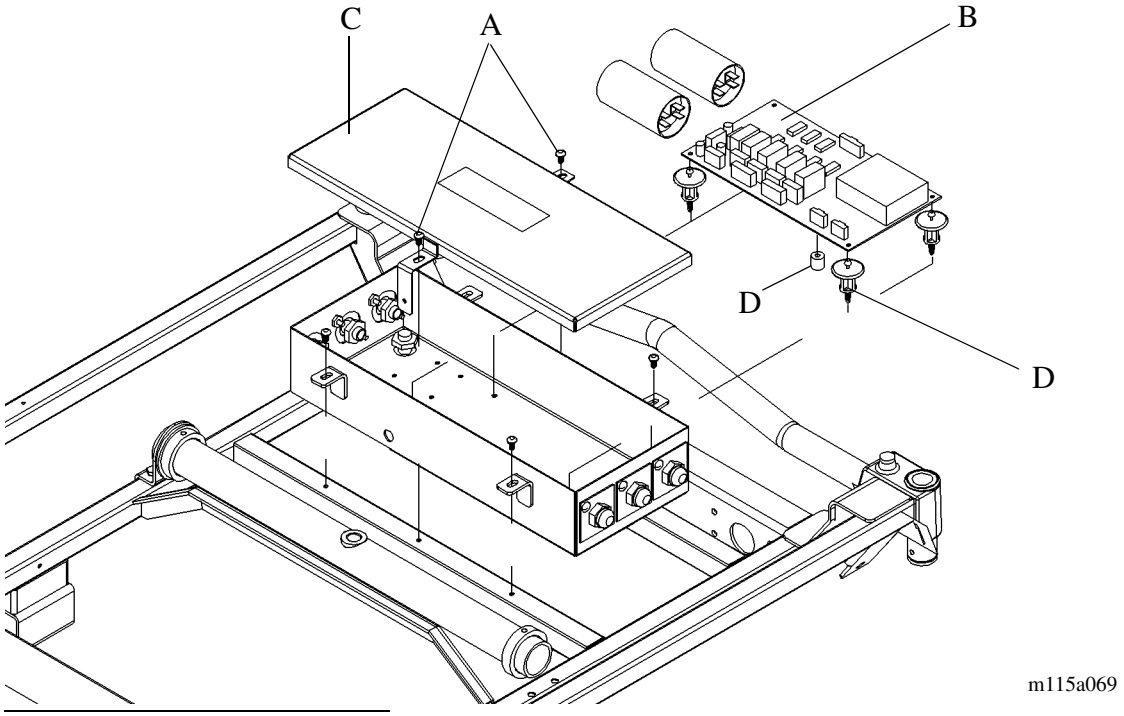
SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

2. Unplug the stretcher from its power source.

3. Using the ratchet and the T25 Torx® head bit, remove the two screws (A) (see figure 4-17 on page 4-37) and lockwashers (E) (see figure 4-18 on page 4-38) that secure the electric box cover weldment (C).

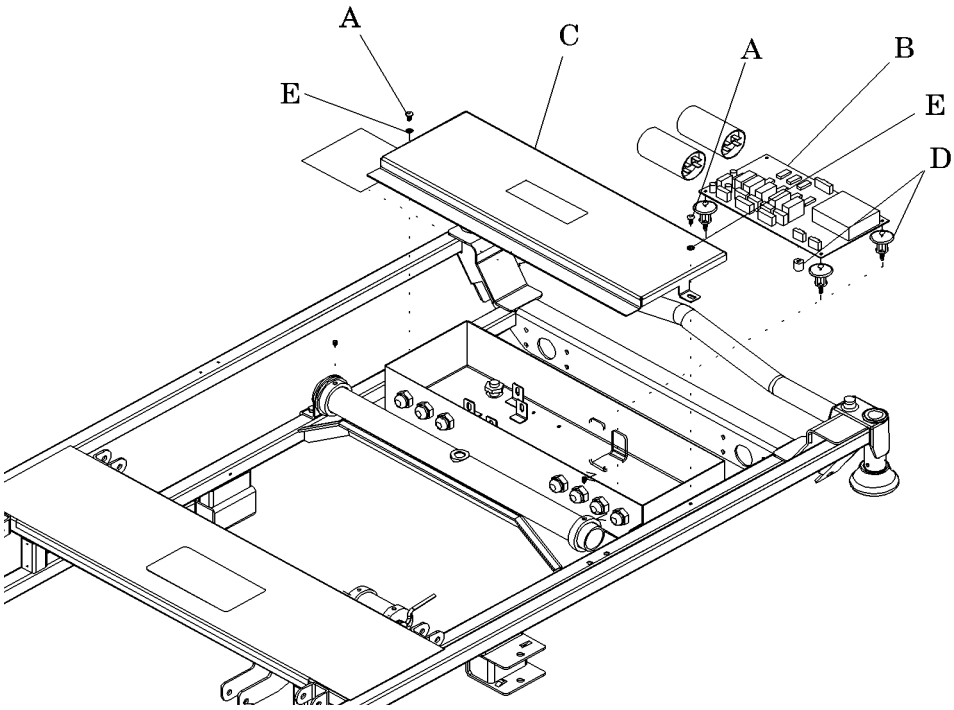
NOTE:
On the A version electric stretchers, the lockwashers are not installed.

Figure 4-17. Control Board With Bolt-on Electric Box



1. Torx® is a registered trademark of Textron, Inc.

Figure 4-18. Control Board With Welded-on Electric Box (Current Version)



4. Remove the electric box cover weldment (C).

5. Using the side cutters, cut the wire ties that secure the wiring assemblies from inside the electric box.

6. Remove the potentiometer cable assembly connector (B) from P1 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

7. Remove the left siderail wiring assembly connector (A) from P2 on the control board (H).

8. Remove the right siderail wiring assembly connector (F) from P3 on the control board (H).

9. Remove the nurse control wiring assembly connector (E) from P4 on the control board (H).

10. Remove the power cord assembly connector (G) from P5 on the control board (H).

11. Remove the head drive brake wiring assembly connector (I) from P6 on the control board (H).

Figure 4-19. Control Board Wiring Assembly Diagram—Bolt-on Electric Box

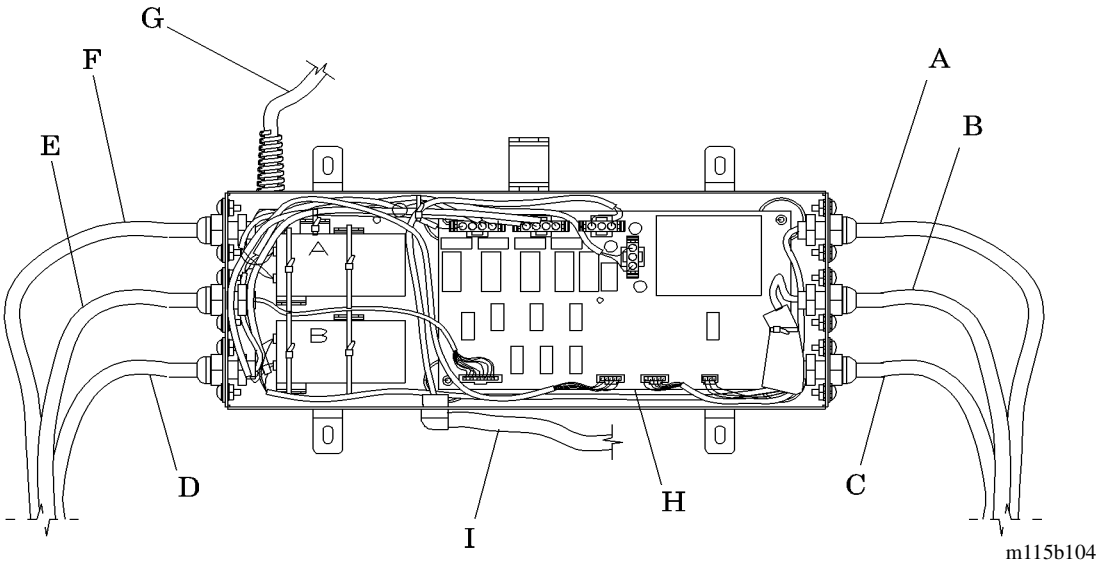
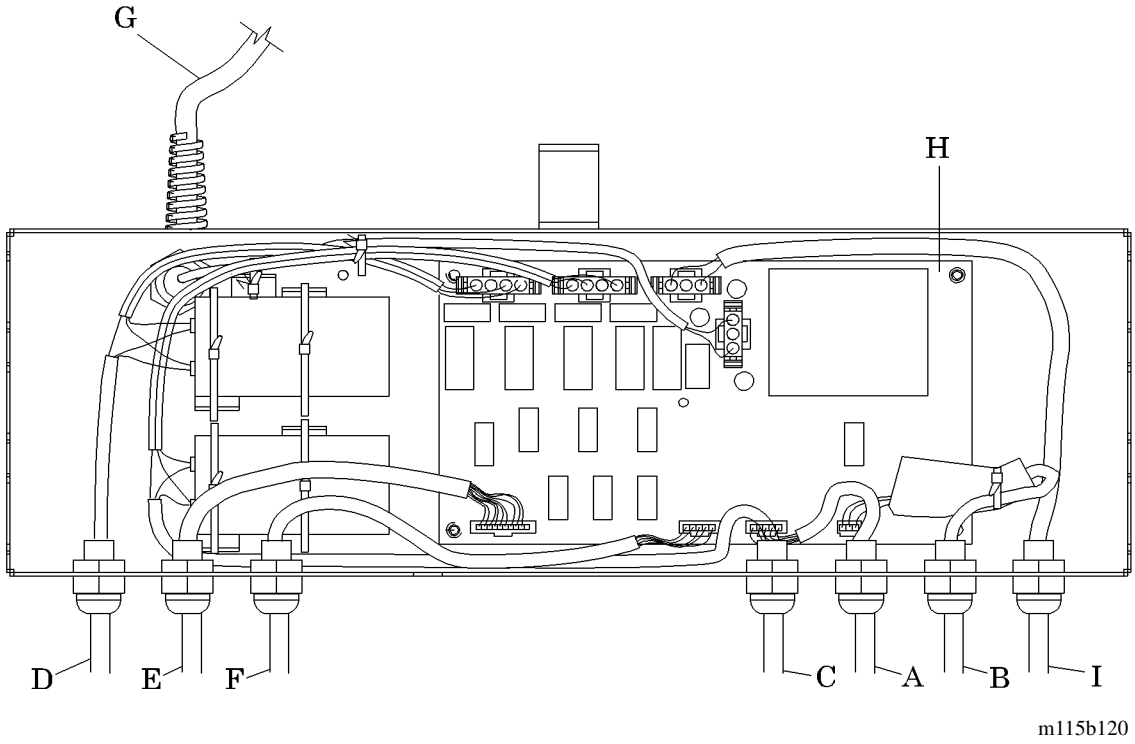


Figure 4-20. Control Board Wiring Assembly Diagram—Welded-on Electric Box (Current Version)



4

12. Remove the head drive wiring assembly connector (C) from P7 on the control board (H).

13. Remove the knee drive wiring assembly connector (D) from P8 on the control board (H).

14. Squeeze the standoffs (D) at each corner and the middle of the control board (B), and lift the board off the standoffs (D) (see figure 4-17 on page 4-37) or (see figure 4-18 on page 4-38).

Replacement

1. Place the new control board (B) over the standoffs (D), and press down gently until the board snaps onto the standoffs (D) (see figure 4-17 on page 4-37) or (see figure 4-18 on page 4-38).

2. Connect the potentiometer cable assembly connector (B) to P1 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

3. Connect the left siderail wiring assembly connector (A) to P2 on the control board (H).

4. Connect the right siderail wiring assembly connector (F) to P3 on the control board (H).

5. Connect the nurse control wiring assembly connector (E) to P4 on the control board (H).

6. Connect the power cord assembly connector (G) to P5 on the control board (H).

7. Connect the head drive brake wiring assembly connector (I) to P6 on the control board (H).

8. Connect the head drive wiring assembly connector (C) to P7 on the control board (H).

9. Connect the knee drive wiring assembly connector (D) to P8 on the control board (H).

10. Install wire ties to secure the wiring assemblies to the other wiring assemblies inside the electric box.

11. Using the ratchet and the T25 Torx® head bit, install the two screws (A) (see figure 4-17 on page 4-37) and lockwashers (E) (see figure 4-18 on page 4-38) that secure the electric box cover weldment (C).

NOTE:
On the A version electric stretchers, the lockwashers are not installed.

12. Plug the stretcher into an appropriate power source, and check for proper operation.

4.14 Electric Stretcher Potentiometer

Tools required:	Ratchet	T25 Torx®[1] head bit
	¼" Allen™[2] wrench	½" open end wrench
	Side cutters	6" straight edge

Removal

1. Raise and secure the head section of the stretcher to gain access to the electric box.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

2. Unplug the stretcher from its power source.

3. Using the ratchet and the T25 Torx® head bit, remove the two screws (A) (see figure 4-17 on page 4-37) and lockwashers (E) (see figure 4-18 on page 4-38) that secure the electric box cover weldment (C).

NOTE:
On the A version electric stretchers, the lockwashers are not installed.

4. Remove the electric box cover weldment (C).

5. Remove the potentiometer cable assembly connector (B) from P1 on the control board (H) (see figure 4-19 on page 4-39) or (see figure 4-20 on page 4-39).

6. Using the ½" open end wrench, remove the nut (H) that secures the potentiometer cable assembly (A) to the electric box (M). The nut will remain with the wiring assembly (see figure 4-21 on page 4-43) or (see figure 4-22 on page 4-43).

7. Using the ratchet and the T25 Torx® head bit, remove the two screws (N) and nuts that secure the potentiometer cable assembly (A) to the electric box (M) (see figure 4-21 on page 4-43).

8. Remove the potentiometer cable assembly (A) from the electric box (M).

9. Using the side cutters, cut the wire ties (I) that secure the potentiometer cable assembly (A) along the left side of the upper frame.

1. Torx® is a registered trademark of Textron, Inc.
2. Allen™ is a trademark of Industrial Fasteners, Inc.

Figure 4-21. Electric Stretcher Potentiometer With Bolt-on Electric Box

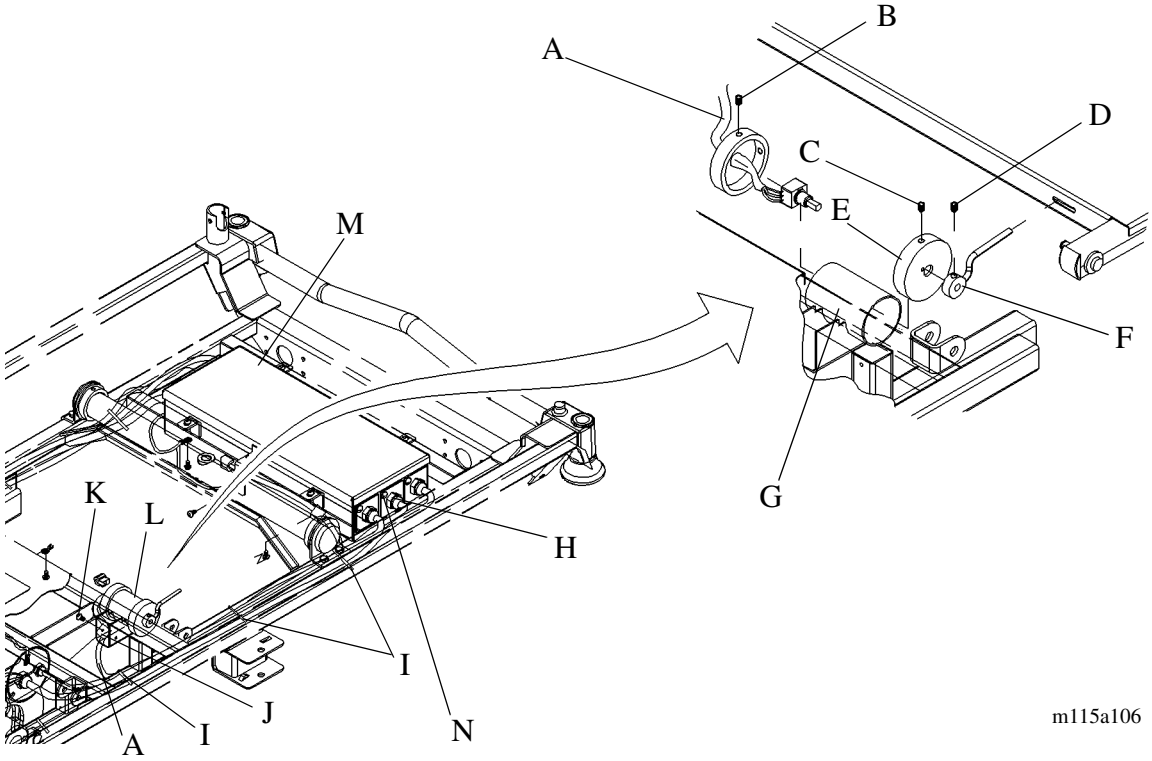
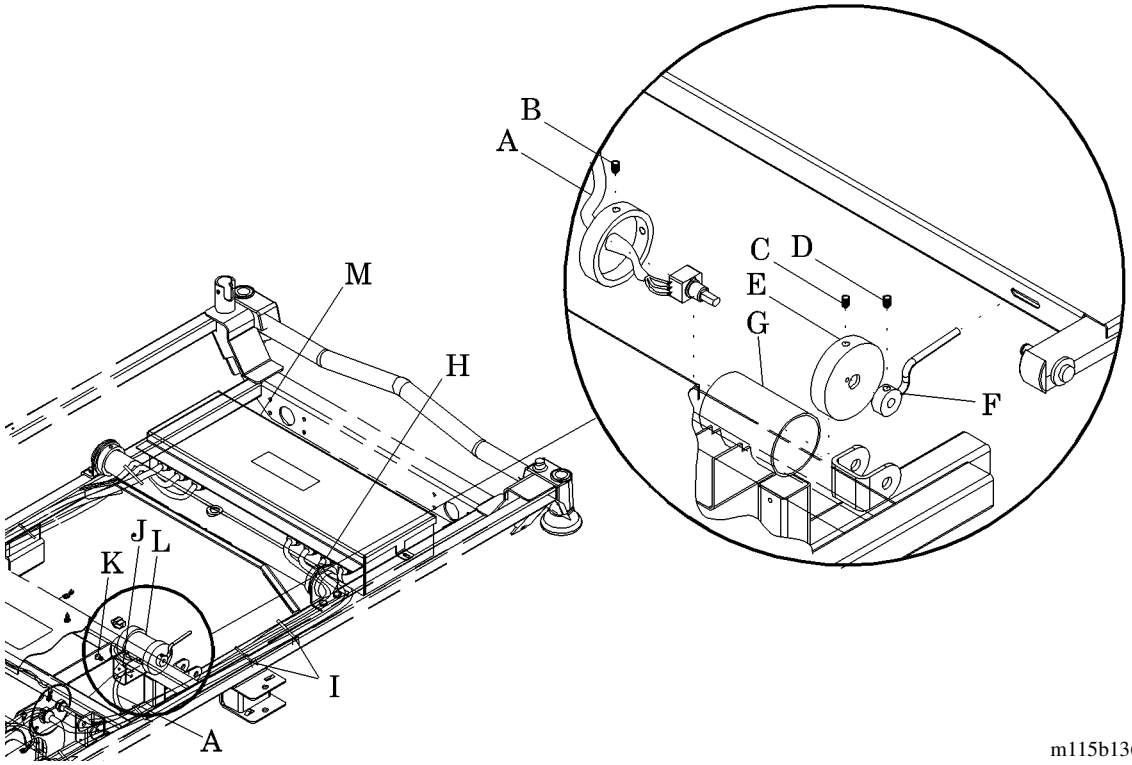


Figure 4-22. Electric Stretcher Potentiometer With Welded-on Electric Box (Current Version)



10. Lower the head section with the CPR release handle to gain access to the potentiometer (L).

11. Using the ratchet and the T25 Torx® head bit, remove the screw (K) and cable clamp (J).

12. Using the ¼" Allen™ wrench, remove the setscrew (B) from the side of the potentiometer cable assembly (A).

13. Using the ¼" Allen™ wrench, remove the setscrew (D) from the potentiometer weldment (F).

14. Using the ¼" Allen™ wrench, remove the setscrew (C) from the potentiometer can (E).

15. Pull the potentiometer can back that has the wiring assembly going through, and disconnect the potentiometer cable assembly (A).

16. Remove the potentiometer cable assembly (A), the potentiometer weldment (F), and the potentiometer can (E) from the potentiometer tube (G).

NOTE:
The potentiometer tube is welded to the upper frame.

Replacement

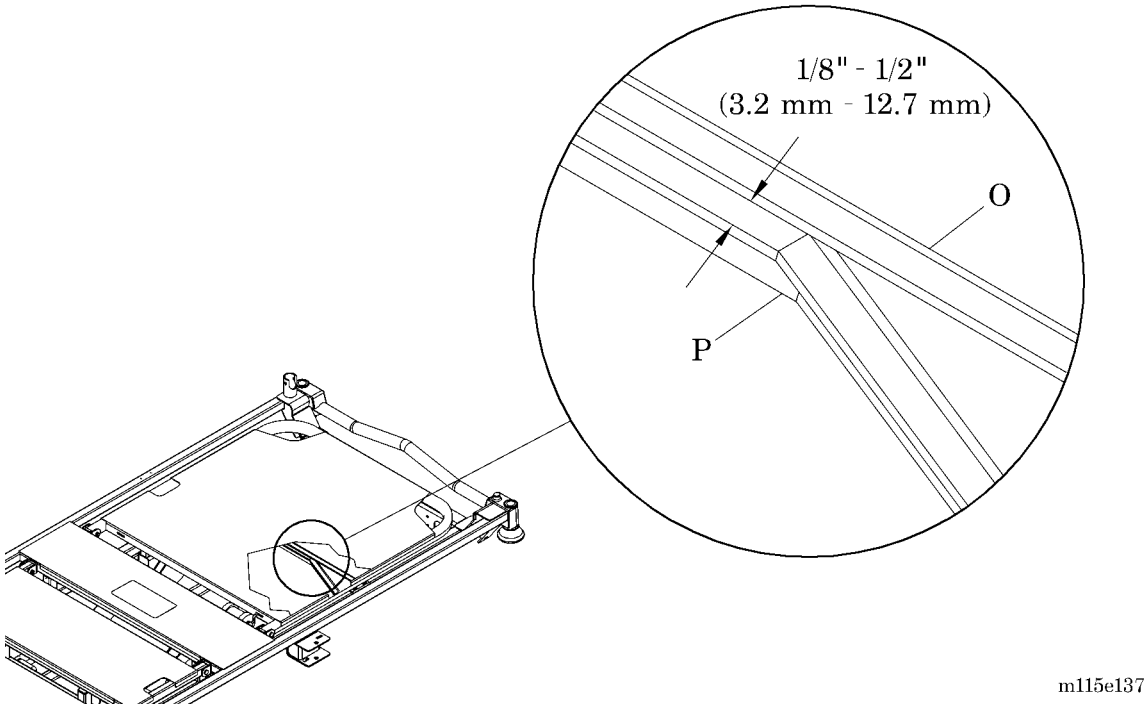
Perform the removal procedure in reverse order.

Adjustment

1. Plug the stretcher into an appropriate power source, and put the back section down by pressing the head down arrow on the patient control switch located on the siderail (see figure 2-1 on page 2-28).

2. Using the 6" straight edge, measure the gap between the bottom surface of the back section (O) and the top of the head section support bracket (P) (see figure 4-23 on page 4-45). The gap must be 1/8" (3.2 mm) to ½" (12.7 mm). If the measurement is 1/8" (3.2 mm) to ½" (12.7 mm), no further adjustment is necessary. If not, go to step 3 of Adjustment.

Figure 4-23. Electric Stretcher Potentiometer Adjustment



3. Using the ¼" Allen™ wrench, loosen the setscrew (C) from the potentiometer can (E) (see figure 4-21 on page 4-43) or (see figure 4-22 on page 4-43).

4. Adjust the potentiometer by moving the potentiometer can (E). If the stretcher is stopping too soon, the gap is larger than ½" (12.7 mm). Rotate the potentiometer can (E) clockwise (from side-view with back panel to the right). Rotate the potentiometer can (E) counterclockwise if the gap is smaller than 1/8" (3.2 mm).

5. Repeat step 2 of Adjustment. If the measurement is correct, tighten the setscrew (C) using the ¼" Allen™ wrench.

4.15 Electric Stretcher Power Cord Assembly

Tools required: T25 Torx®[1] head bit, Ratchet, 7/16" open end wrench, Side cutters, Extraction tool (P/N 429022)

Removal

1. Raise and secure the head section of the stretcher to gain access to the electric box.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

2. Unplug the stretcher from its power source.

3. Using the ratchet and the T25 Torx® head bit, remove the two screws (A) that secure the electric box cover weldment (C) (see figure 4-17 on page 4-37).

4. Remove the electric box cover weldment (C).

5. Using the side cutters, cut the wire ties that secure the power cord assembly from inside the electric box.

6. Remove the power cord assembly connector (G) from P5 on the control board (H) (see figure 4-19 on page 4-39).

7. Use the 7/16" open end wrench to loosen the strain relief (A) from the bottom of the electric box (inside) (see figure 4-24 on page 4-47).

8. Using the ratchet and the T25 Torx® head bit, remove the ground screw (D) and the self-locking nut (C) that secure the power cord assembly's ground strap (E).

9. Using the extraction tool, remove the terminals from the power cord assembly connector housing.

NOTE:
The power cord assembly connector will not fit through the hole in the electric box unless the terminals are removed from the connector.

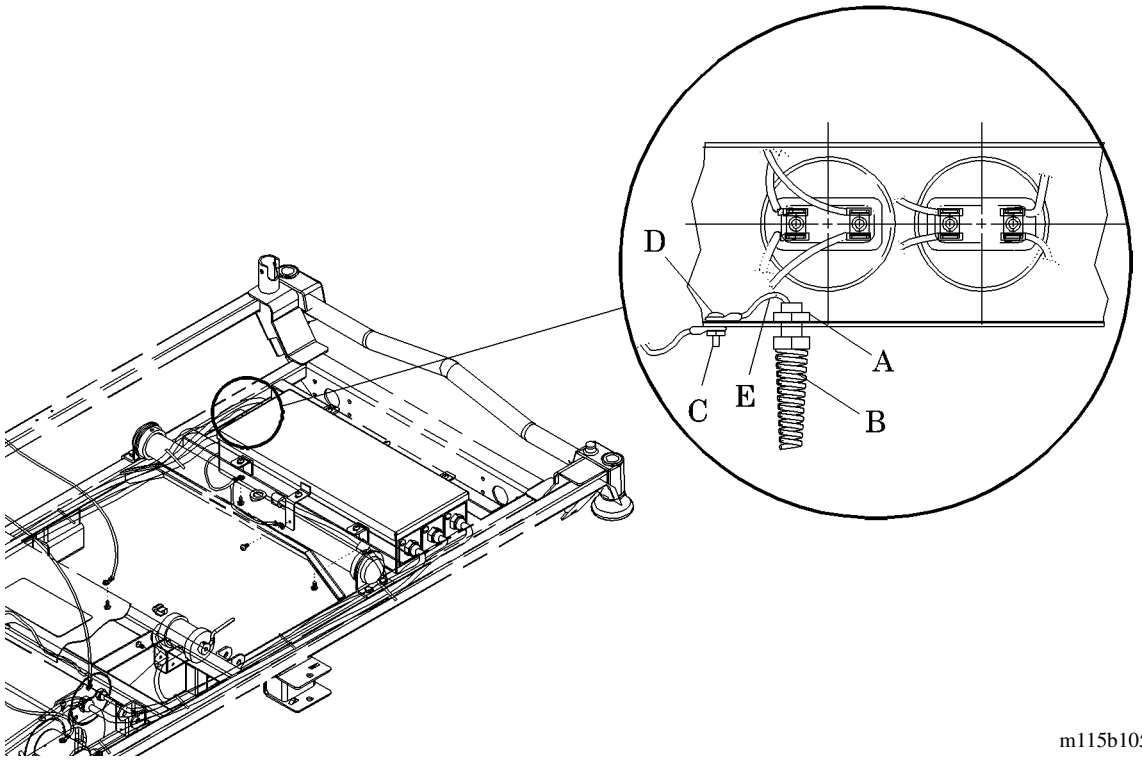
1. Torx® is a registered trademark of Textron, Inc.

10. Pull the power cord assembly (B) out through the bottom of the electric box.

Replacement

1. Install the new power cord assembly through the bottom of the electric box.

Figure 4-24. Electric Stretcher Power Cord Assembly



2. Install (loosely) the strain relief (A) to secure the power cord assembly (B) to the electric box.

3. Snap the terminals into the power cord assembly connector housing.

4. Connect the power cord assembly connector (G) to P5 on the control board (H) (see figure 4-19 on page 4-39).

5. Use the 7/16" open end wrench to secure the strain relief (A) firmly in place (see figure 4-24 on page 4-47).

6. Install the ground screw (D), the ground strap (E), and the self-locking nut (C) to the electric box using the ratchet and the T25 Torx® head bit.

7. Install wire ties to secure the power cord assembly to the other wiring assemblies inside the electric box.

8. Place the electric box cover weldment (C) in place, and secure to the frame with the two (A) (see figure 4-17 on page 4-37).

9. Plug the stretcher into an appropriate power source, and check for proper operation.

4.16 Procedural/Fixed Height/Trauma/OB/GYN Stretcher Back Panel Gas Spring

Tools required: Screwdriver Pliers
17 mm open end wrench
Retaining ring removal/installation tool

Removal

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

1. Raise the back panel to the 90° position.

2. Using the pliers and the screwdriver, remove the push nut (D) from the solid rivet (C) that secures the release handle to the gas spring (G) (see figure 4-25 on page 4-50) or (see figure 4-26 on page 4-50).

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

3. Using the retaining ring removal/installation tool, remove the retaining rings (A) and (F) from the top and bottom headed pins (B) and (E). **Do not remove the headed pins at this time.**

4. Lower the back panel to the horizontal position, and remove the bottom headed pin (E) from the gas spring (G).

5. Raise the back panel, and remove the top headed pin (B) from the gas spring (G).

6. Remove and discard the gas spring (G).

Figure 4-25. Procedural/Fixed Height/Trauma Stretcher Back Panel Gas Spring

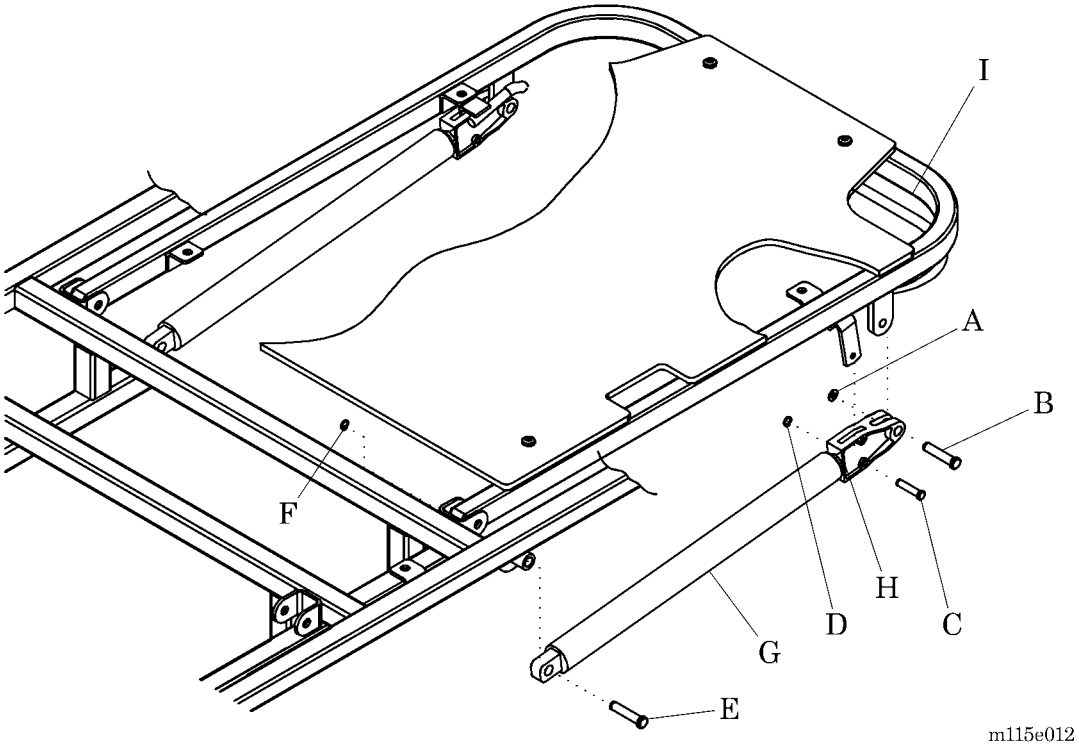
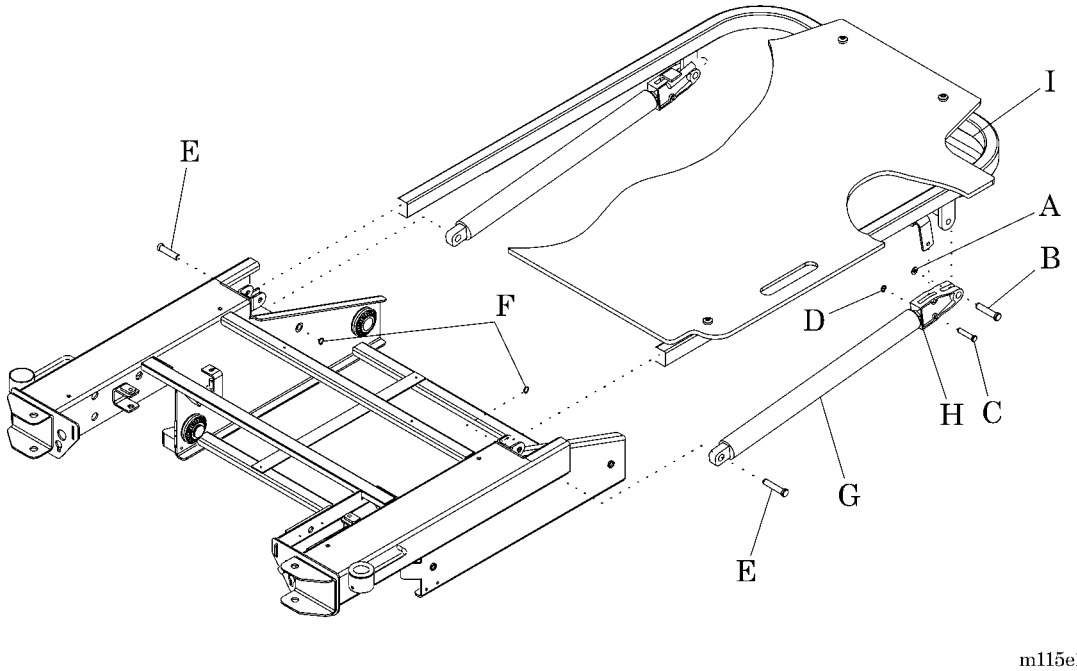


Figure 4-26. OB/GYN Stretcher Back Panel Gas Spring



Replacement

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

1. Raise the back panel, put the **new** gas spring (G) into position, and install the top headed pin (B).

2. Lower the back panel to the horizontal position, and install the bottom headed pin (E) through the gas spring (G) and frame bracket.

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

3. Using the retaining ring removal/installation tool, install the retaining rings (A) and (F) into the grooves of the top and bottom headed pins (B) and (E).

4. Install the solid rivet (C) that secures the release handle to the gas spring (G).

5. Install the push nut (D) onto the solid rivet (C).

6. Check the adjustment on the release handle (see "Adjustment" on page 4-51).

Adjustment

1. Raise the back panel to approximately 45°, and apply a downward pressure on the side of the back section that requires the adjustment.

2. Squeeze the back panel release handle (I) located under the back panel (see figure 4-25 on page 4-50) or (see figure 4-26 on page 4-50).

3. The back panel release handle (I) should activate before the handle comes in contact with the back panel frame.

4. Ensure that the back panel release handle (I) does not release too early or with too little pressure applied to the handle.

5. If adjustment to the gas spring is required, using the 17 mm open end wrench, loosen the jam nut (H) located at the top of the gas spring.

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

6. Using the retaining removal/installation tool, remove the retaining ring (F) and the bottom headed pin (E) located at the bottom of the gas spring.

7. Rotate the gas spring clockwise or counterclockwise to adjust.

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

8. Using the retaining removal/installation tool, install the bottom headed pin (E) and the retaining ring (F) located at the bottom of the gas spring.

9. Check the operation of the back panel release handle (I) again, and repeat the adjustment procedure if necessary.

10. Using the 17 mm open end wrench, tighten the jam nut (H).

4.17 Surgical Stretcher Back Section Gas Spring

Tools required: 17 mm open end wrench 7/16" open end wrench
5/32" Allen™[1] wrench

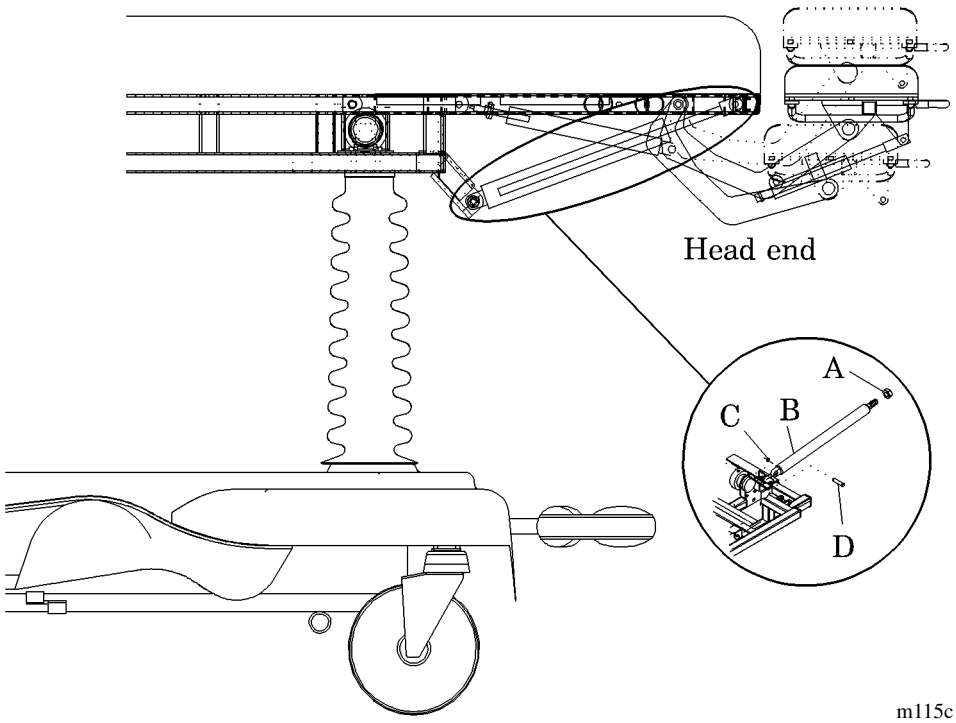
Removal

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

1. Using the 17 mm open end wrench, loosen the jam nut (A) located at the top of the gas spring (B) (see figure 4-27 on page 4-53).

2. Using the 5/32" Allen™ wrench and the 7/16" open end wrench, remove the lock nut (C) and the shoulder bolt (D) located at the bottom of the gas spring (B).

Figure 4-27. Surgical Stretcher Back Section Gas Spring



1. Allen™ is a trademark of Industrial Fasteners, Inc.

Replacement

WARNING:
With little or no weight on it, the back section could rise quickly. Ensure that you fully control the lift of the back section. Failure to do so could result in personal injury.

1. Raise the back panel, put the **new** gas spring (B) into position, and loosely install the jam nut (A).

2. Lower the back panel to the horizontal position, and install the lock nut (C) and shoulder bolt (D).

3. Check the adjustment of the gas spring (B) and the release handles (see "Adjustment" on page 4-54). Check both release handles individually, and check with and without the PACU extenders installed.

4. Using the 5/32" Allen™ wrench and the 7/16" open end wrench, tighten the lock nut (C) and the shoulder bolt (D).

5. Using the 17 mm open end wrench, tighten the jam nut (A).

Adjustment

1. Put the stretcher in the full flat position.

NOTE:
The gas spring is to be adjusted so that when the release handle is engaged approximately half-way through its full travel, the gas spring releases; and when the release handle is disengaged, the gas spring is locked (secure). Ensure that the release handle does not release too early or with too little pressure applied to the handle, and that it returns to its original position.

2. Squeeze the **left** release handle located at the top of the back section (hand cut-out).

NOTE:
The PACU extenders can either be removed from the stretcher, in the armboard position, or in the extended position. If they are in the extended position (around the articulating head section), then the release handle on the PACU extenders must be used to raise or lower the back section.

CAUTION:
Do not rotate the gas spring rod with a clamping device. Damage to the rod can occur.

3. If adjustment to the gas spring is required, use the 17 mm open end wrench, and loosen the jam nut (A) located at the top of the gas spring (B) (see figure 4-27 on page 4-53).

4. Using the 5/32" Allen™ wrench and the 7/16" open end wrench, remove the lock nut (C) and the shoulder bolt (D) located at the bottom of the gas spring (B).

5. Rotate the gas spring (B) clockwise or counterclockwise in half-turn increments to adjust.

6. Loosely install the shoulder bolt (D).

7. Check the operation of the release handle again, and repeat the adjustment procedure for the **right** release handle, the left PACU release handle, and the right PACU release handle (if necessary).

8. When all release handles are functioning properly, install the lock nut (C) located at the bottom of the gas spring.

9. Using the 17 mm open end wrench, tighten the jam nut (A).

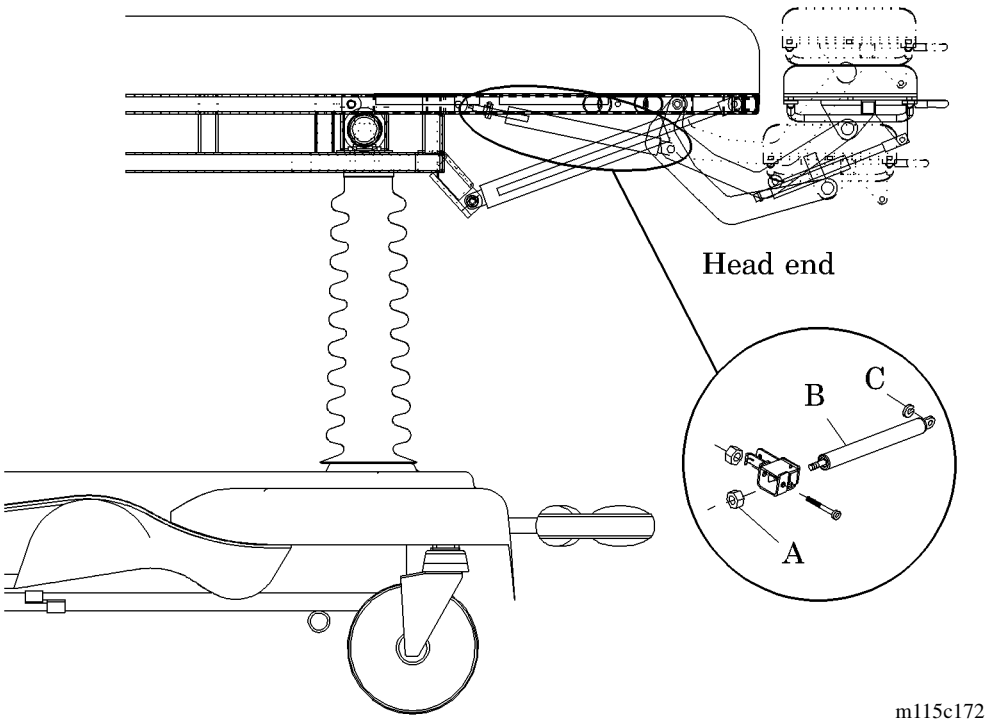
4.18 Surgical Stretcher Articulating Headrest Gas Spring

Tools required: ½" open end wrench
Retaining ring removal/installation tool

Removal

1. Using the ½" open end wrench, loosen the jam nut (A) that secures the gas spring (B) (see figure on page 4-57).

Figure 4-28. Surgical Stretcher Articulating Headrest Gas Spring



CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

2. Using the retaining ring removal/installation tool, remove the retaining ring (C) from the gas spring (B).

Replacement

1. Raise the headrest, put the **new** gas spring (B) into position, and loosely install the jam nut (A).

WARNING:
Do not use a retaining ring that is overextended. Personal injury could occur.

2. Lower the headrest (if necessary).

3. Using the retaining ring removal/installation tool, install the retaining ring (C).

4. Check the adjustment of the articulating headrest gas spring (see "Adjustment" on page 4-57).

5. Using the 17 mm open end wrench, tighten the jam nut (A).

Adjustment

1. Engage the push handle release to actuate the articulating headrest. Adjust the gas spring so that when the push handle release is engaged, the gas spring and the Mechlok®[1] device release at the same time.

CAUTION:
Do not rotate the gas spring rod with a clamping device. Damage to the rod can occur.

2. If adjustment is necessary, use the ½" open end wrench, and loosen the jam nut (A) that secures the gas spring (B) (see figure 4-28 on page 4-56).

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

3. Using the retaining ring removal/installation tool, remove the retaining ring (C) from the gas spring (B).

4. Rotate the gas spring (B) clockwise or counterclockwise to adjust.

1. Mechlok® is a registered trademark of P. L. Porter Company.

WARNING:
Do not use a retaining ring that is overextended. Personal injury could occur.

5. Ensure that the retaining ring is not overextended.
6. Using the retaining ring removal/installation tool, install the retaining ring (C).
7. Check the operation of the articulating headrest gas spring again, and repeat the adjustment procedure again if necessary.
8. Using the ½" open end wrench, tighten the jam nut (A).

4.19 PC-300–PC-550 Procedural/Surgical Stretcher Knee Screw Assembly

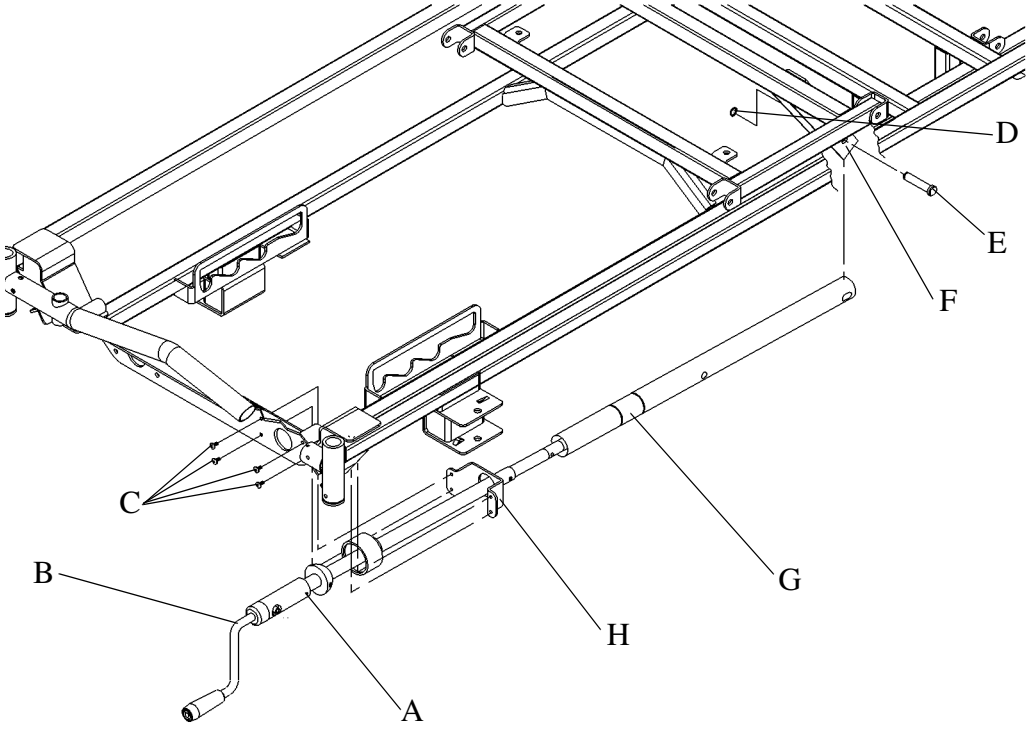
Tools required:

Ratchet	Hammer
T25 Torx®[1] head bit	3/16" pin punch
Torque wrench 0-250 in-lb	
Retaining ring removal/installation tool	
Lithium-base grease (P/N SA3351)	

Removal

1. Crank the knee Gatch assembly to the horizontal position (see figure 4-29 on page 4-59).

Figure 4-29. PC-300–PC-550 Procedural/Surgical Stretcher Knee Screw Assembly



2. Using the hammer and the 3/16" pin punch, remove the roll pin (A) that attaches the crank handle (B) to the knee screw assembly (G).

3. Using the ratchet and the T25 Torx® head bit, remove the four screws (C) that secure the knee screw assembly (G) to the upper frame.

1. Torx® is a registered trademark of Textron, Inc.

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

4. Using the retaining ring removal/installation tool, remove the retaining ring (D) from the headed pin (E) located at the head end of the knee screw assembly (G).

5. Remove the headed pin (E) from the knee screw assembly (G).

6. Remove the knee screw assembly (G).

Replacement

1. Using lithium grease, lightly grease the knee screw assembly (G) threads.

2. Slide the knee screw assembly (G) through the foot end of the stretcher.

3. Install the headed pin (E) through the knee screw assembly (G) and the base frame bracket (F).

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

4. Using the retaining ring removal/installation tool, install the retaining ring (D) onto the headed pin (E).

5. Using the ratchet and the T25 Torx® head bit, install the four screws (C) into the crank bracket (H) located at the foot of the upper frame assembly.

6. Using the torque wrench, torque the four screws (C) to 50 $\pm$ 8 in-lb (5.7 $\pm$ 0.9 N·m).

7. Put the crank handle (B) on to the knee screw assembly (G).

8. Align the hole in the crank handle (B) with the hole in the knee screw assembly (G). Using the hammer, install the roll pin (A) through the crank handle (B) and knee screw assembly (G).

4.20 Electric Stretcher Knee Drive Assembly

Tools required:	Ratchet	T25 Torx®[1] head bit
	½" socket	Hammer
	Phillips head screwdriver	3/16" pin punch
	Retaining ring removal/installation tool	
	Blue Loctite®[2] (P/N SA3618) adhesive	

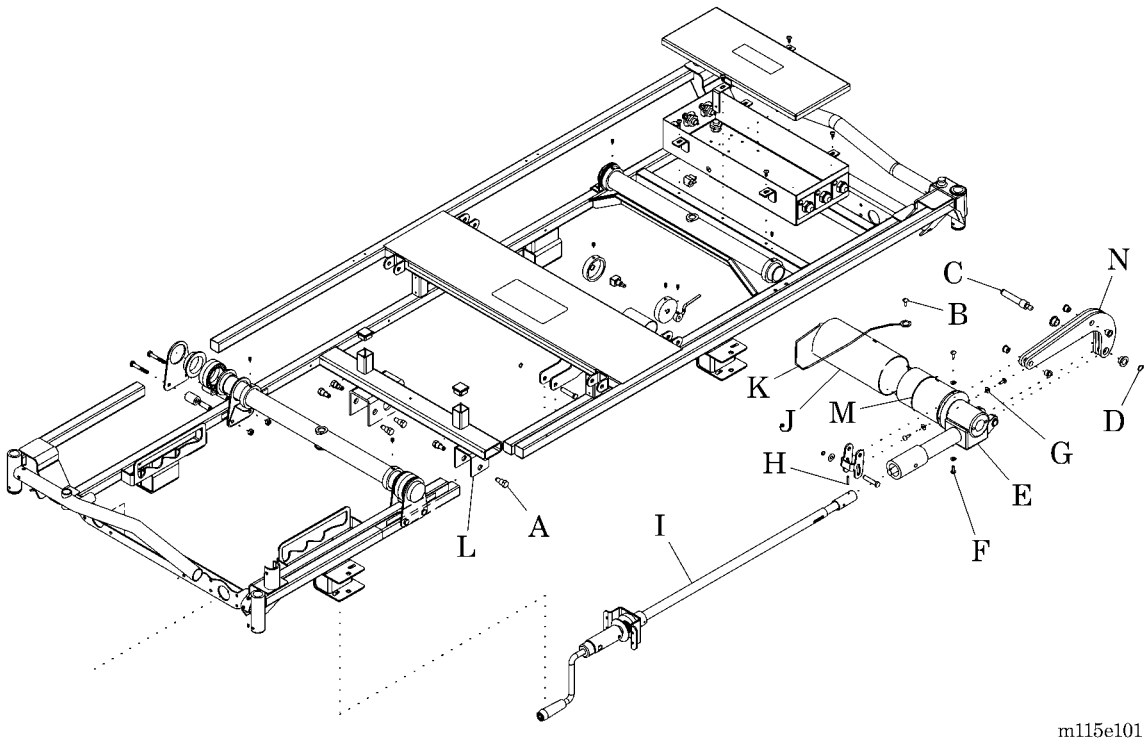
Removal

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.

2. Using the 3/16" pin punch and hammer, remove the roll pin (H) that secures the crank handle weldment (I) to the knee drive assembly (E) (see figure 4-30 on page 4-61).

Figure 4-30. Electric Stretcher Knee Drive Assembly



1. Torx® is a registered trademark of Textron, Inc.
2. Loctite® is a registered trademark of Loctite Corporation.

3. Using the ratchet and ½" socket, remove the two actuator mounting bolts (A). Make sure you support the knee drive assembly.

4. Using the ratchet and T25 Torx® head bit, remove the ground screw (B) that secures the ground strap (K) to the knee drive assembly (E).

5. Using the phillips head screwdriver, remove the four screws (F) and washers (G) that secure the knee motor housing (J).

6. Remove the knee motor housing (J), and disconnect the electrical connector.

7. Remove the O-ring (M) from the knee drive assembly (E).

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

8. Using the retaining ring removal/installation tool, remove the retaining ring (D) from the actuator mounting pin (C).

9. Remove the actuator mounting pin (C).

10. Remove the knee drive assembly (E).

Replacement

1. Install the actuator mounting pin (C) through the knee drive assembly (E) and the dogleg weldment (N).

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

2. Using the retaining ring removal/installation tool, install the retaining ring (D) onto the actuator mounting pin (C).

3. Install the O-ring (M) onto the knee drive assembly (E). Make sure the O-ring is seated against the flange of the knee drive assembly (E).

4. Connect the electrical connector, and install the knee motor housing (J).

5. Using the phillips head screwdriver, install the four screws (F) and washers (G) that secure the knee motor housing (J).

6. Using the ratchet and the T25 Torx® head bit, install the ground screw (B) that secures the ground strap (K) to the knee drive assembly (E).

7. Support the knee drive assembly (E), and put the crank handle weldment (I) in the knee drive assembly.

8. Align the hole in the crank handle weldment (I) with the hole in the knee drive assembly (E). Using the hammer, install the roll pin (H) through the crank handle weldment (I) and the knee drive assembly (E).

9. Apply blue Loctite® 242 adhesive to the threads of the actuator mounting bolts (A).

10. Using the ratchet and ½" socket, tighten the two actuator mounting bolts (A) that secure the knee drive assembly (E) to the base frame bracket (L).

11. Plug the stretcher into an appropriate power source, and check for proper operation.

4.21 Electric Stretcher Head Drive Assembly

Tools required:

T25 Torx®[1] head bit	Ratchet
Hammer	3/16" pin punch
½" socket	Phillips head screwdriver
Torque wrench 0-250 in-lb	
Retaining ring removal/installation tool	
Blue Loctite®[2] (P/N SA3618) adhesive	

Removal

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

1. Unplug the stretcher from its power source.

2. Put the stretcher in the following configuration: the back section down, the thigh section up, the foot section up, and the hilow up.

3. Using the ratchet and the T25 Torx® head bit, remove the two screws (I) that hold the gearbox cover weldment (K) to the gearbox (see figure 4-31 on page 4-65).

4. Using the 3/16" pin punch and hammer, remove the roll pin (H) that secures the head drive assembly (O) to the gearbox linkage.

5. Pull the gearbox shaft out of the head drive assembly (O).

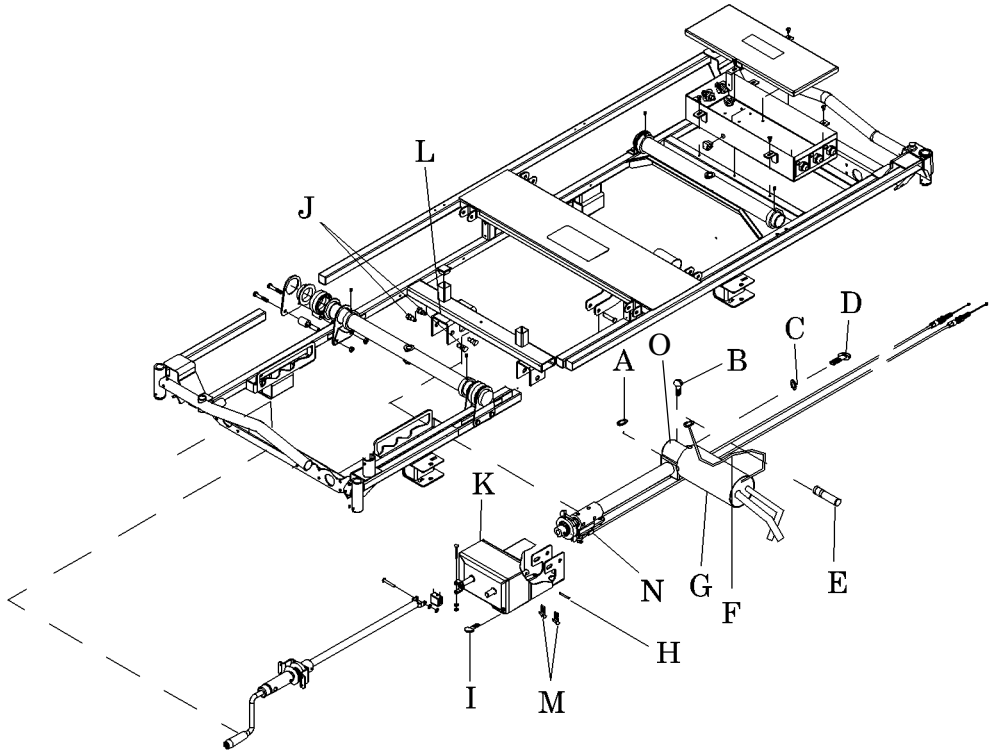
CAUTION:
Use care when removing the cable attachment screws. Keep the CPR release cable assembly together to aid in the installation. Equipment damage can occur.

6. Using the ratchet and ½" socket, remove the two cable attachment screws (M) that secure the CPR release cable assembly (N) to the bottom of the head drive assembly (O).

7. Using the ratchet and ½" socket, remove the four actuator mounting bolts (J).

1. Torx® is a registered trademark of Textron, Inc.
2. Loctite® is a registered trademark of Loctite Corporation.

Figure 4-31. Electric Stretcher Head Drive Assembly



CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

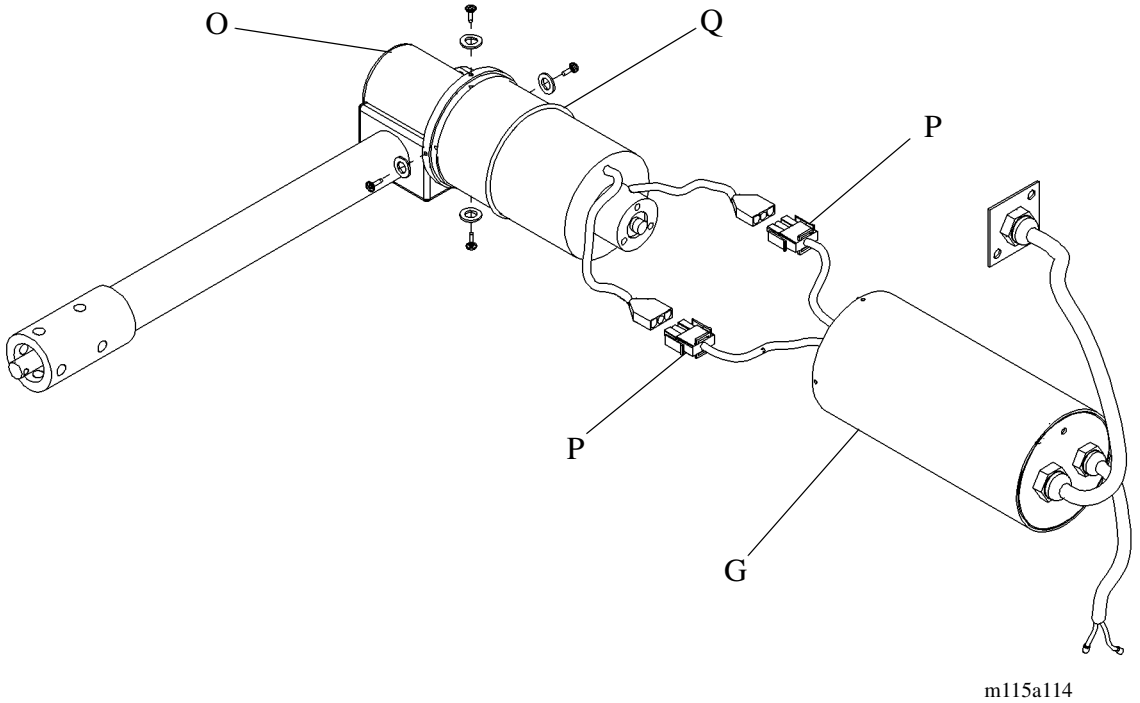
8. Using the retaining ring removal/installation tool, remove the retaining ring (A) from the actuator mounting pin (E).

9. Support the head drive assembly (O), and remove the actuator mounting pin (E).

10. Using the ratchet and T25 Torx® head bit, remove the ground screw (B) that secures the ground strap (F) to the head drive assembly (O).

NOTE:
You do not need to remove the dampener when the actuator mounting pin is removed.

Figure 4-32. Electric Stretcher Head Motor Housing



11. While supporting the head drive assembly (O), use the phillips head screwdriver, and remove the four screws (D) and washers (C) that secure the head motor housing (G).

12. Pull the head motor housing (G) back, and disconnect the two electrical connectors (P) (see figure 4-32 on page 4-66).

13. Remove the head motor housing (G).

14. Remove the O-ring (Q) from the head drive assembly (O).

15. Remove the head drive assembly (O) (see figure 4-31 on page 4-65).

Replacement

1. Install the actuator mounting pin (E) through the head drive assembly (O).

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

2. Using the retaining ring removal/installation tool, install the retaining ring (A) onto the actuator mounting pin (E).

3. Install the O-ring (Q) onto the head drive assembly (O). Make sure the O-ring is seated against the flange of the head drive assembly (see figure 4-32 on page 4-66).

4. Connect the two electrical connectors (P), and install the head motor housing (G).

5. Using the phillips head screwdriver, install the four screws (D) and washers (C) that secure the head motor housing (G) (see figure 4-31 on page 4-65).

6. Using the ratchet and the T25 Torx® head bit, install the ground screw (B) that secures the ground strap (F) to the head drive assembly (O).

7. Support the head drive assembly (O), and put the gearbox shaft in the head drive assembly.

8. Apply blue Loctite® 242 adhesive to the threads of the cable attachment screws (M) and actuator mounting bolts (J).

9. Using the ratchet and ½" socket, install the two cable attachment screws (M) that secure the head drive assembly (O) and the CPR cable assembly (N).

10. Using the torque wrench, torque the two cable attachment screws (M) to 210 $\pm$ 30 in-lb (23.7 $\pm$ 3.4 N·m).

11. Using the ratchet and ½" socket, tighten the four actuator mounting bolts (J) that secure the head drive assembly (O) to the base frame bracket (L).

12. Align the hole in the gearbox shaft with the hole in the head drive assembly (O). Using the hammer, install the roll pin (H) through the gearbox shaft and the head drive assembly (O).

13. Plug the stretcher into an appropriate power source, and check for proper operation.

4.22 Electric Stretcher CPR Release Cable Assembly

Tools required:	Ratchet	T25 Torx®[1] head bit
	½" socket	½" open end wrench
	¼" socket	Torque wrench 0-250 in-lb
	5/16" Allen™[2] wrench	Side cutters

Removal

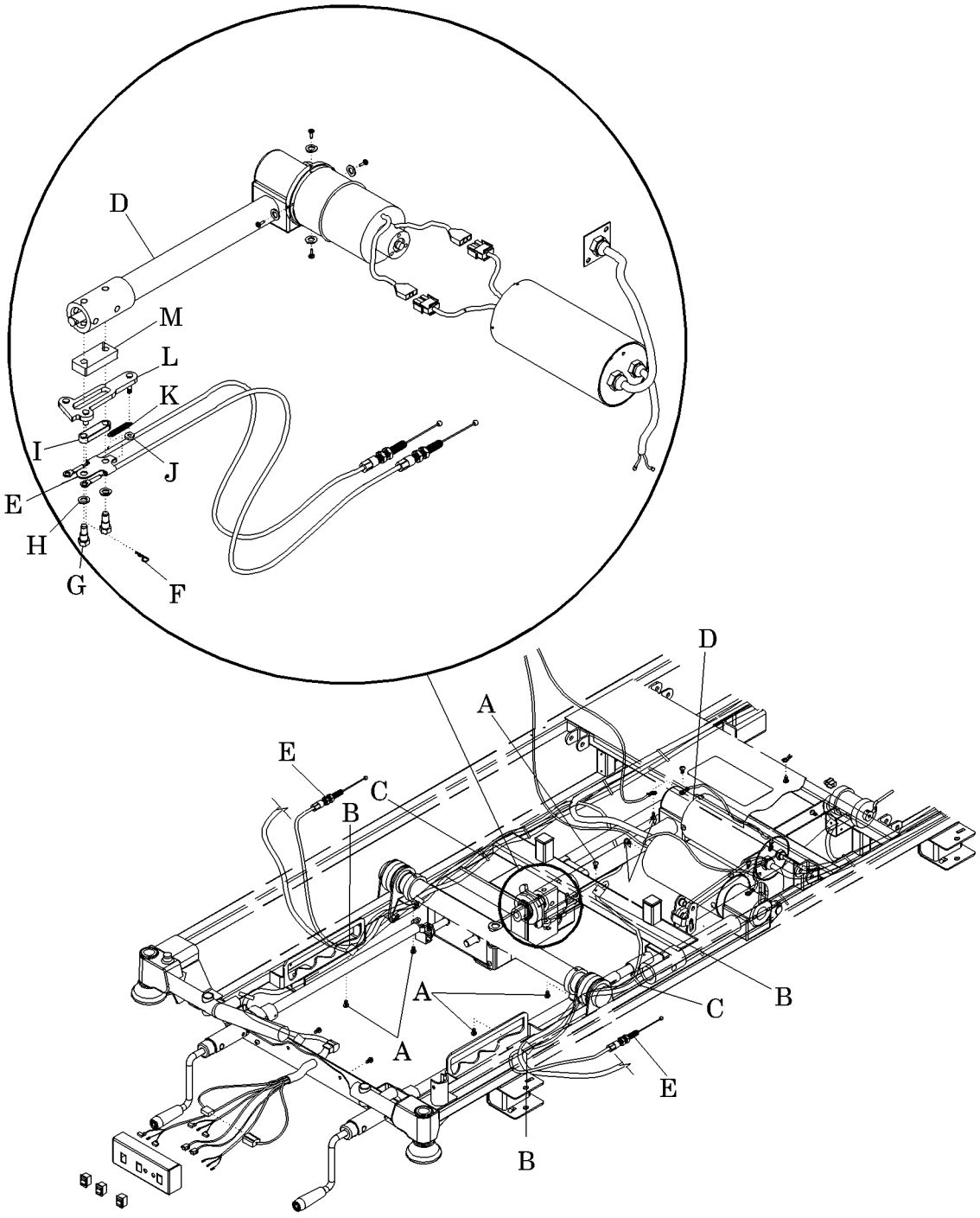
1. Lower the head and knee sections to the full flat position.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury and equipment damage.

2. Unplug the stretcher from its power source.
3. Record the wiring/cable orientation at the bottom of the siderail and along the upper frame. This will aid in the installation.
4. Remove the snap wire cover (J) from the bottom rail (F) (see figure 4-4 on page 4-13).
5. Using the 5/16" Allen™ wrench, remove the shoulder bolt (H).
6. Using the ½" open end wrench, remove the cable adjusting nut (I).
7. Using the side cutters, cut the wire ties that secure the siderail cable assembly (K) and the CPR cable (L) (see figure 4-5 on page 4-14) to the bottom rail (F) (see figure 4-4 on page 4-13).
8. Using the side cutters, cut the wire ties (C) along the upper frame (see figure 4-33 on page 4-69).
9. Using the T25 Torx® head bit and ratchet, remove the five screws (A) and cable clamps (B) that secure the CPR release cable assembly (E) to the upper frame.
10. Remove the pin (F) from the latch weldment (L).
11. Using the ratchet and ½" socket, remove the two cable attachment screws (G) and lockwashers (H).
12. Using the ratchet and ¼" socket, remove the nut (J) and spring (K).
13. Remove the CPR release cable assembly (E), the latch guide (I), the latch weldment (L), and the main bushing release spacer (M).

1. Torx® is a registered trademark of Textron, Inc.
2. Allen™ is a trademark of Industrial Fasteners, Inc.

Figure 4-33. Electric Stretcher CPR Release Cable Assembly



Replacement

1. Using the ratchet and ¼" socket, install the spring (K) and nut (J) on the latch weldment (L). Tighten the nut to the bottom of the threads on the latch weldment.

2. Assemble the main bushing release spacer (M), latch weldment (L), latch guide (I), CPR release cable assembly (E), and the spring (K) as shown.

3. Attach the end of the spring (K) to the CPR release cable assembly (E).

4. Using the ratchet and ½" socket, install the two cable attachment screws (G) and lockwashers (H) that secure the above assembly to the head drive assembly (D).

5. Using the torque wrench, torque the two cable attachment screws (G) to 210 $\pm$ 30 in-lb (23.7 $\pm$ 3.4 N·m).

6. Install the pin (F) on the latch weldment (L).

7. Place the CPR release cable assembly (E) in position along the upper frame and along the bottom of the siderail. Make sure the cable and ball are properly seated in the CPR handle weldment.

8. Install loosely the cable adjusting nut (I) (see figure 4-4 on page 4-13).

9. Using the 5/16" Allen™ wrench, install the shoulder bolt (H) that secures the CPR handle weldment.

10. Using the T25 Torx® head bit and ratchet, install the five screws (A) and cable clamps (B) that secure the CPR release cable assembly (E) to the upper frame (see figure 4-33 on page 4-69).

11. Install the wire ties (C) along the upper frame. Cut the excess off of the wire tie so it is flush with the lock mechanism.

12. While the siderail is in the down position, install a wire tie approximately ¾" (19.1 mm) from the wire jacket on both sides of the connector, and pull the wire tie. Make sure a service loop of ½" (12.7 mm) exists in the electric wire (K) before you tighten the wire tie (see figure 4-4 on page 4-13).

13. Cut the excess off of the wire tie so it is flush with the lock mechanism.

14. Install the snap wire cover (J).

Adjustment

Using the ½" open end wrench, adjust the cable adjusting nut (I) (see figure 4-4 on page 4-13) on the threaded stud such that the handle on the CPR handle weldment just touches the plastic CPR handle when the CPR latch (L) (see figure 4-33 on page 4-69) is fully extended.

4.23 Procedural/Electric/Trauma/Surgical/OB/GYN Stretcher Upper Frame

Tools required: Rubber mallet/hammer, Ratchet, Torque wrench 0-250 in-lb, 9/16" socket, Blue Loctite®[1] (P/N SA3618) adhesive

Removal

1. Raise the stretcher to the high position.

2. If the stretcher is an OB/GYN stretcher, remove the upper frame catch shroud (refer to procedure 4.26).

3. Using the ratchet and the 9/16" socket, remove the bolt (A), lockwasher (B), and washer (D) that attach the round crosstube (C) to the hydraulic cylinder (see figure 4-34 on page 4-73) or (see figure 4-35 on page 4-73) or (see figure 4-36 on page 4-74).

NOTE:
Use a rubber mallet/hammer when removing the upper frame from the hydraulic cylinders.

WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

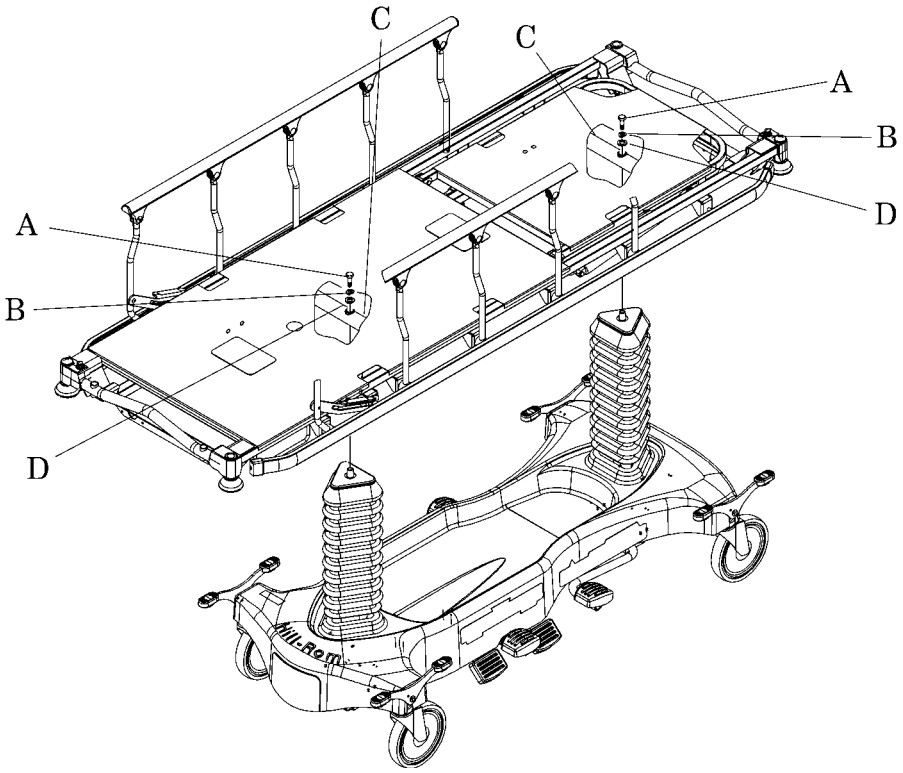
CAUTION:
Be careful not to damage the base shroud when you remove the upper frame assembly.

4. While tapping on the underside of the round crosstube (C) with a rubber mallet/hammer, lift the upper frame assembly until the frame separates from the hydraulic cylinder shaft.

5. Lift the frame from the hydraulic cylinders.

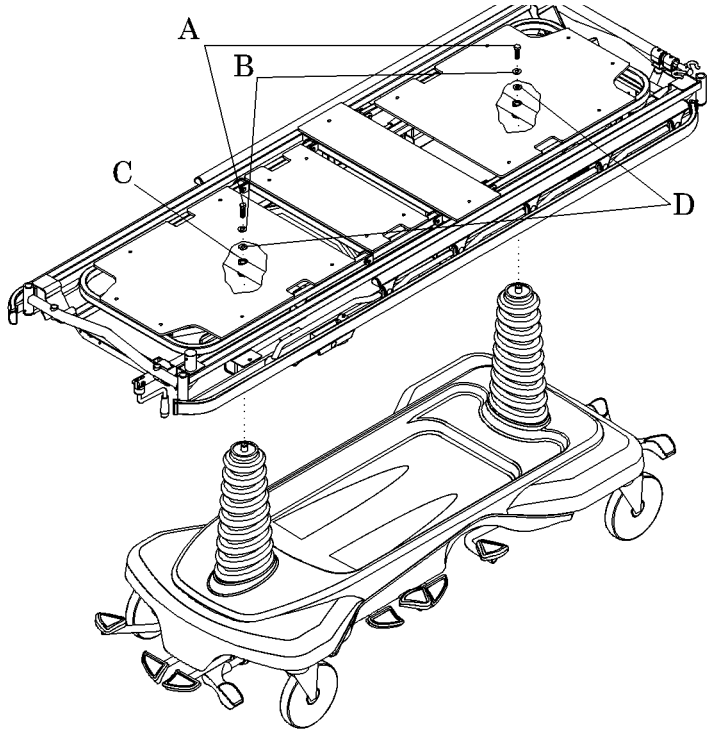
1. Loctite® is a registered trademark of Loctite Corporation.

Figure 4-34. PC-100/PC-200 Procedural Stretcher Upper Frame



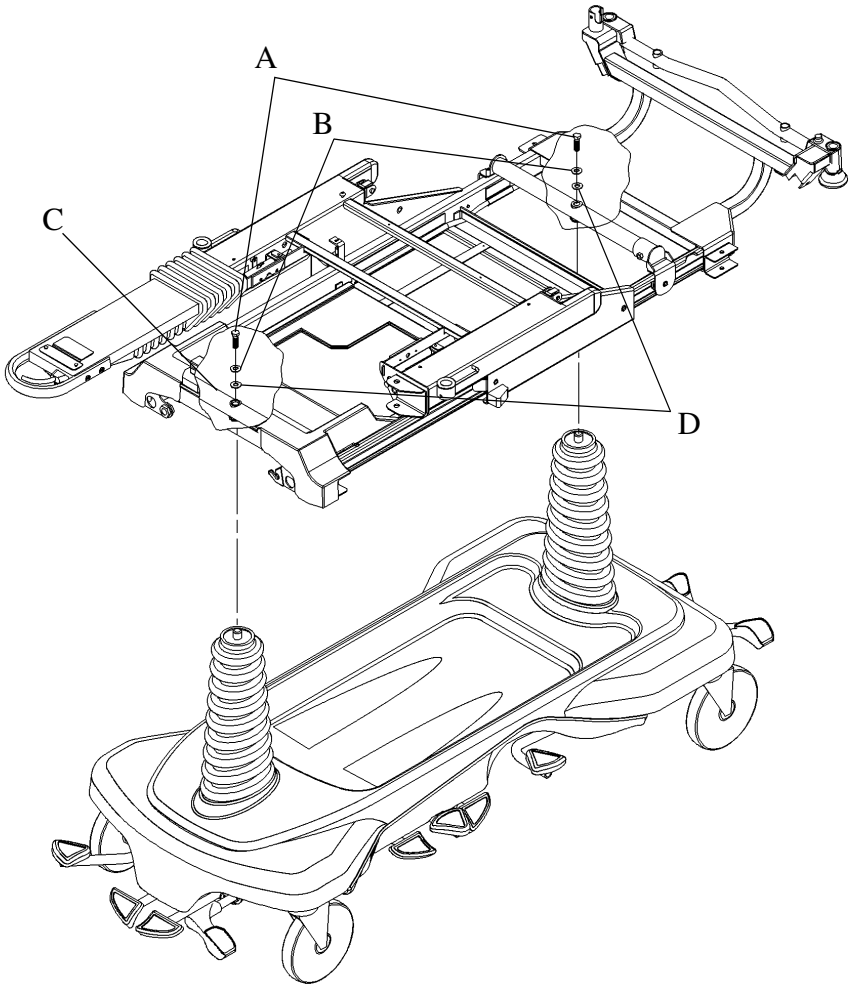
m115e230

Figure 4-35. PC-300–PC-550 Procedural/Electric/Trauma/Surgical Stretcher Upper Frame



m115b014

Figure 4-36. OB/GYN Stretcher Upper Frame



m115d192

Replacement

WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

CAUTION:
Be careful not to damage the base shroud when you install the upper frame assembly.

1. Lift the upper frame, and put the round crosstube (C) of the upper frame onto the hydraulic cylinders. Ensure that the frame is in position on both hydraulic cylinders.

2. Using the ratchet and the 9/16" socket, install the washer (D), lockwasher (B), and bolt (A) to secure the upper frame to the hydraulic cylinder.

3. Using the torque wrench, torque the bolt (A) to 125 $\pm$ 19 in-lb (14.1 $\pm$ 2.1 N·m).

4. If the stretcher is an OB/GYN Stretcher, replace the upper frame catch shroud (refer to procedure 4.26).

4.24 Fixed Height Stretcher Upper Frame

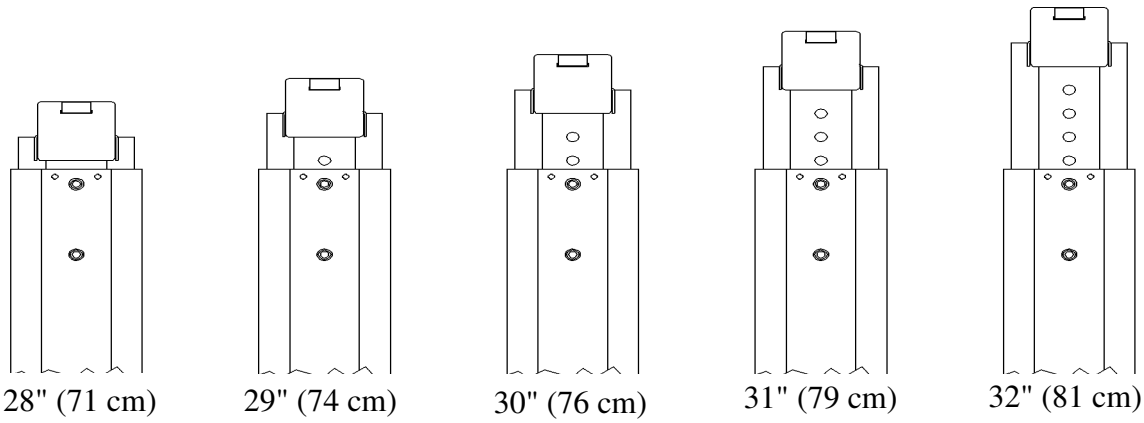
Tools required: Ratchet
¼" socket
¼" Allen™[2] wrench (2 required)
T25 Torx®[1] head bit
Torque wrench 0-250 in-lb

WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

Removal

1. For ease of installation, record the present height configuration, and determine the new height. The height of the sleep surface (upper frame) to floor can be mechanically adjusted from 28" (71 cm) to 32" (81 cm) in 1" (2.5 cm) increments (see figure 4-37 on page 4-76).

Figure 4-37. Fixed Height Stretcher Adjustment (Typical Head and Foot)



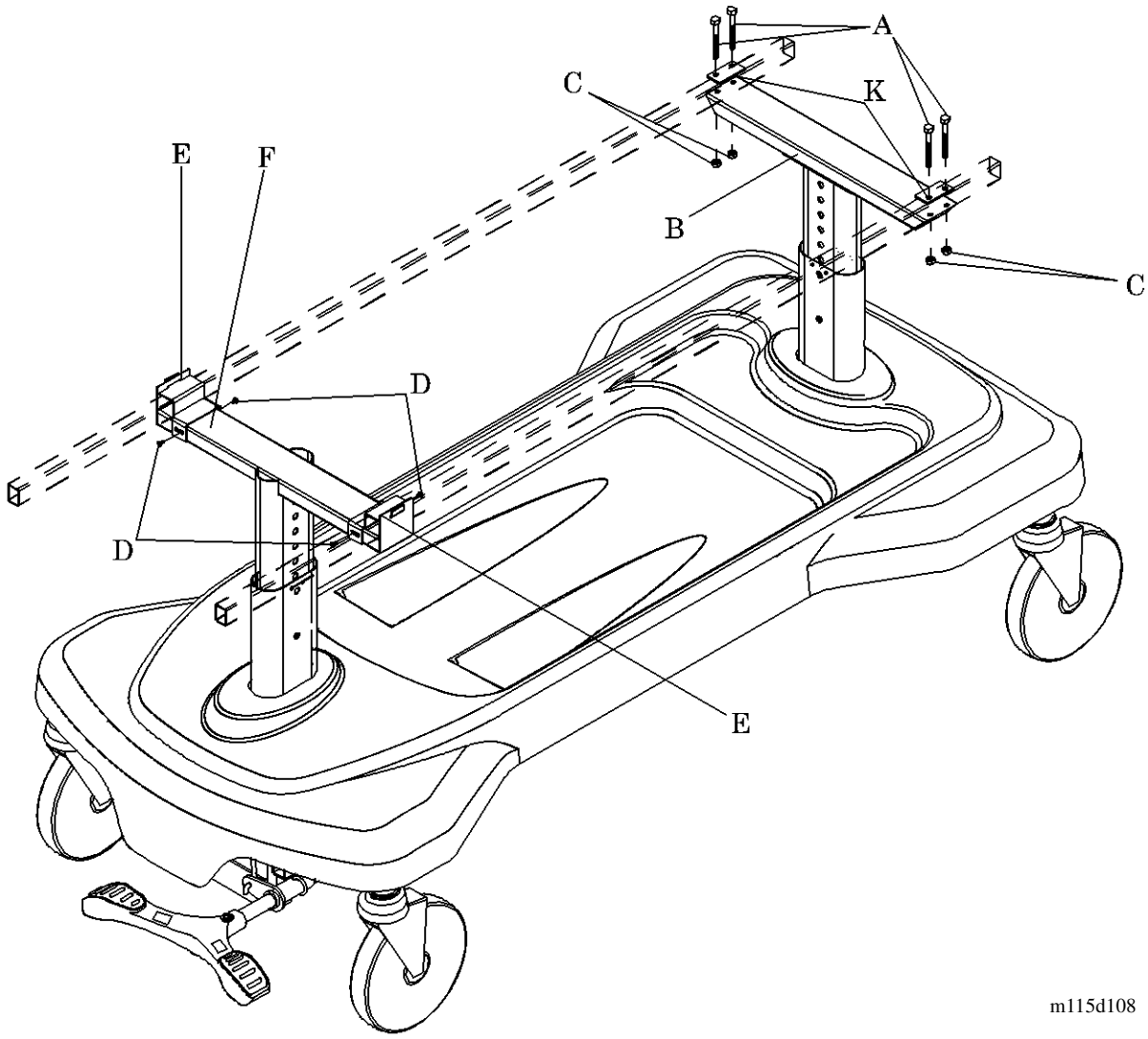
2. Using the ratchet and the ¼" socket, remove the four bolts (A), two plates (K) and nuts (C) that secure the upper frame to the head end weldment (B) (see figure 4-38 on page 4-77).

3. Using the ratchet and T25 Torx® head bit, remove the four screws (D) and two foot end clips (E) that secure the upper frame to the foot end weldment (F).

4. Lift the upper frame from the base assembly and set aside.

1. Torx® is a registered trademark of Textron, Inc.
2. Allen™ is a trademark of Industrial Fasteners, Inc.

Figure 4-38. Fixed Height Stretcher Upper Frame



Adjustment

1. Using the ¼" Allen™ wrench, remove the two screws (H) from one side of the head column base weldment (I) and foot column base weldment (J) (see figure 4-39 on page 4-78).

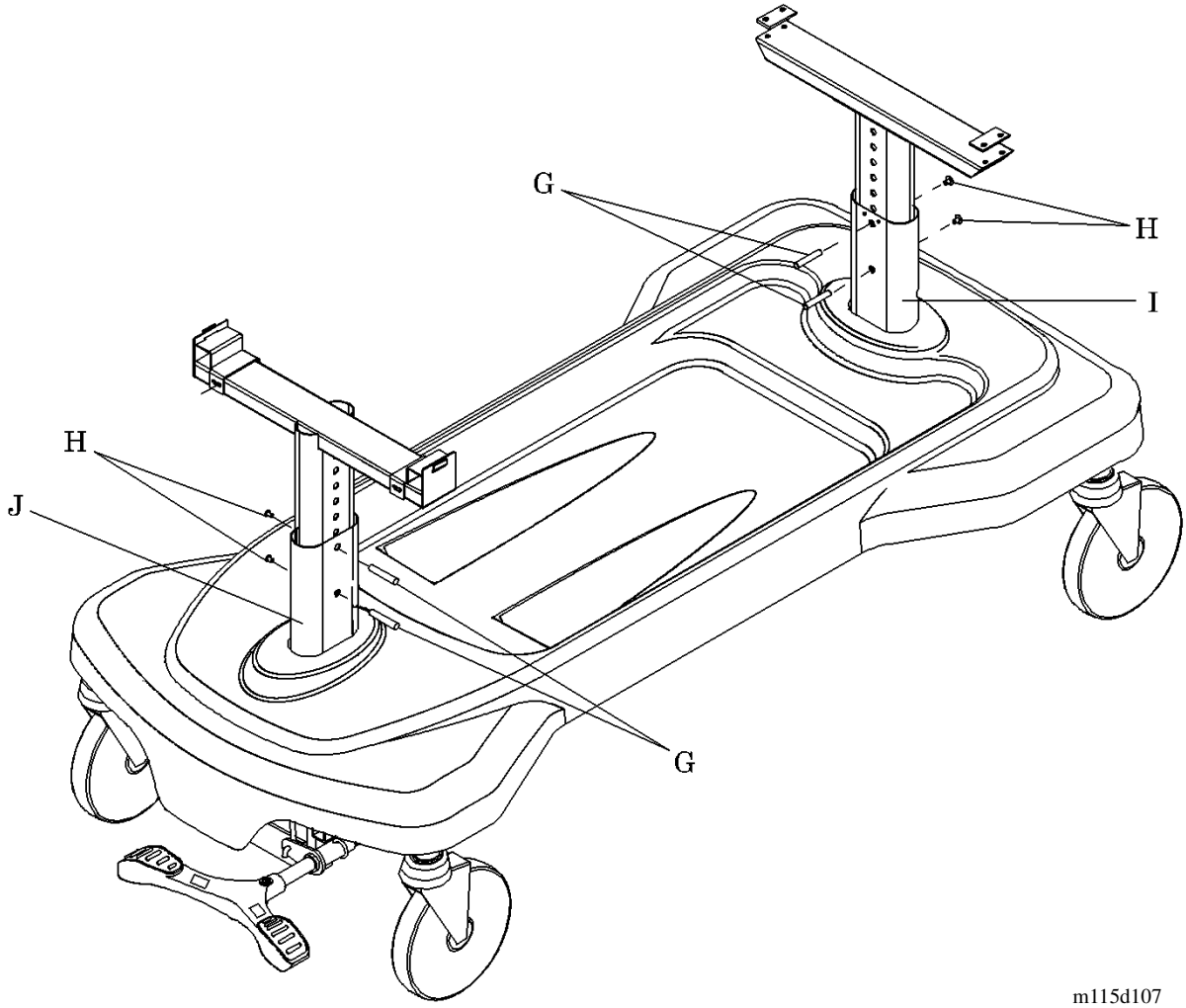
2. Pull the four height adjustment pins (G) from the opposite end that the screws (H) were removed.

3. Raise or lower the upper frame to the height determined in step 1 of Removal.

4. Install the four height adjustment pins (G) into both the head column (I) and foot column base weldments (J). The pins should protrude from the opposite side of base weldments.

5. Using the ¼" Allen™ wrench, install the two screws (H) into the head column base weldment (I) pins (G) and foot column base weldment (J) pins (G). The screws should be fully seated on the pins.

Figure 4-39. Fixed Height Stretcher Upper Frame Height Adjustment



Replacement

1. Put the upper frame onto the base assembly. Ensure that the frame is in position, and the holes align on the head end (B) and foot end weldments (F) (see figure 4-38 on page 4-77).

2. Using the ratchet and the ¼" socket, install the four bolts (A), two plates (K), and nuts (C) that secure the upper frame to the head end weldment (B).

3. Using the ratchet and T25 Torx® head bit, install the four screws (D) and two foot end clips (E) that secure the upper frame to the foot end weldment (F).

4. Using the torque wrench, torque the four nuts (C) to 65 $\pm$ 10 in-lb (7.3 $\pm$ 1.1 N·m).

5. Check the stretcher for proper operation.

4.25 Base Shroud

Tools required: None

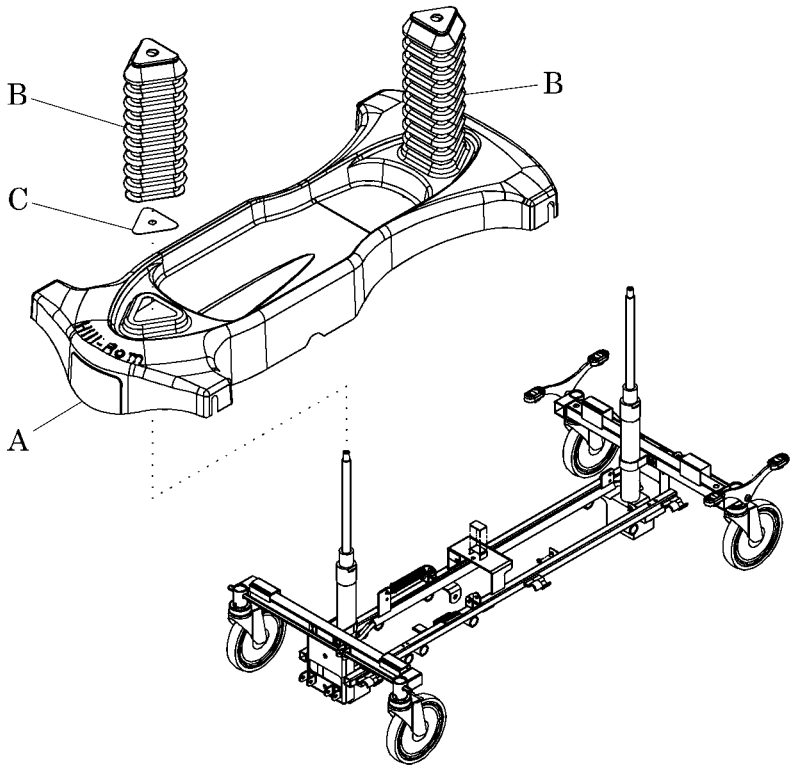
Removal

1. For the procedural, electric, trauma, surgical, and OB/GYN stretchers, remove the upper frame assembly (refer to procedure 4.23). For the fixed height stretcher, remove the upper frame assembly (refer to procedure 4.24).

NOTE:
The shroud is held in place with Velcro®[1] strips.

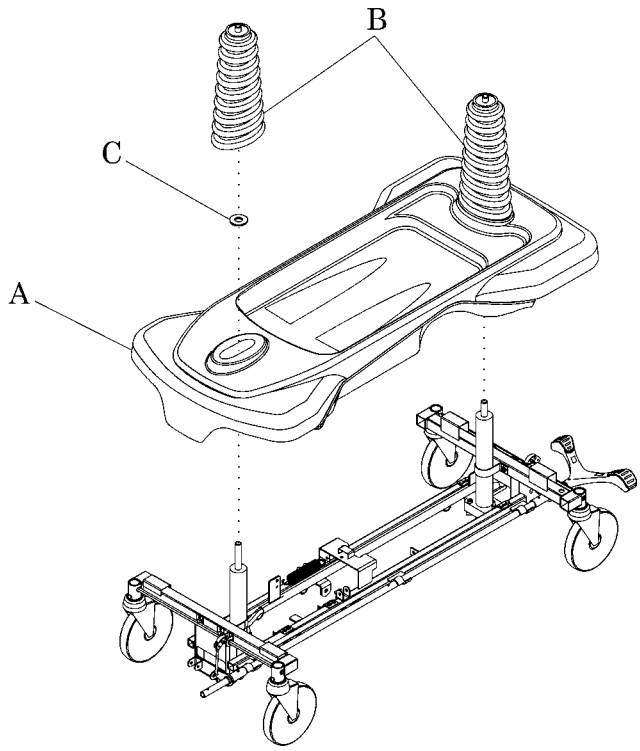
2. Remove the base shroud (A), bellows (B), and bellows attachment plate (C) from the lower frame assembly (see figure 4-40 on page 4-80) or (see figure 4-41 on page 4-81).

Figure 4-40. PC-100/PC-200 Procedural Stretcher Base Shroud and Bellows



1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Figure 4-41. Procedural, Electric, Trauma, Surgical, and OB/GYN Stretcher Base Shroud and Bellows



m115e211

Replacement

NOTE:
The base shroud is held in place with Velcro® strips.

1. Install the base shroud and bellows. Ensure that the base shroud seats firmly into position and makes contact with all Velcro® strips.

2. For the procedural, electric, trauma, surgical, and OB/GYN stretchers, install the upper frame assembly (refer to procedure 4.23). For the fixed height stretcher, install the upper frame assembly (refer to procedure 4.24).

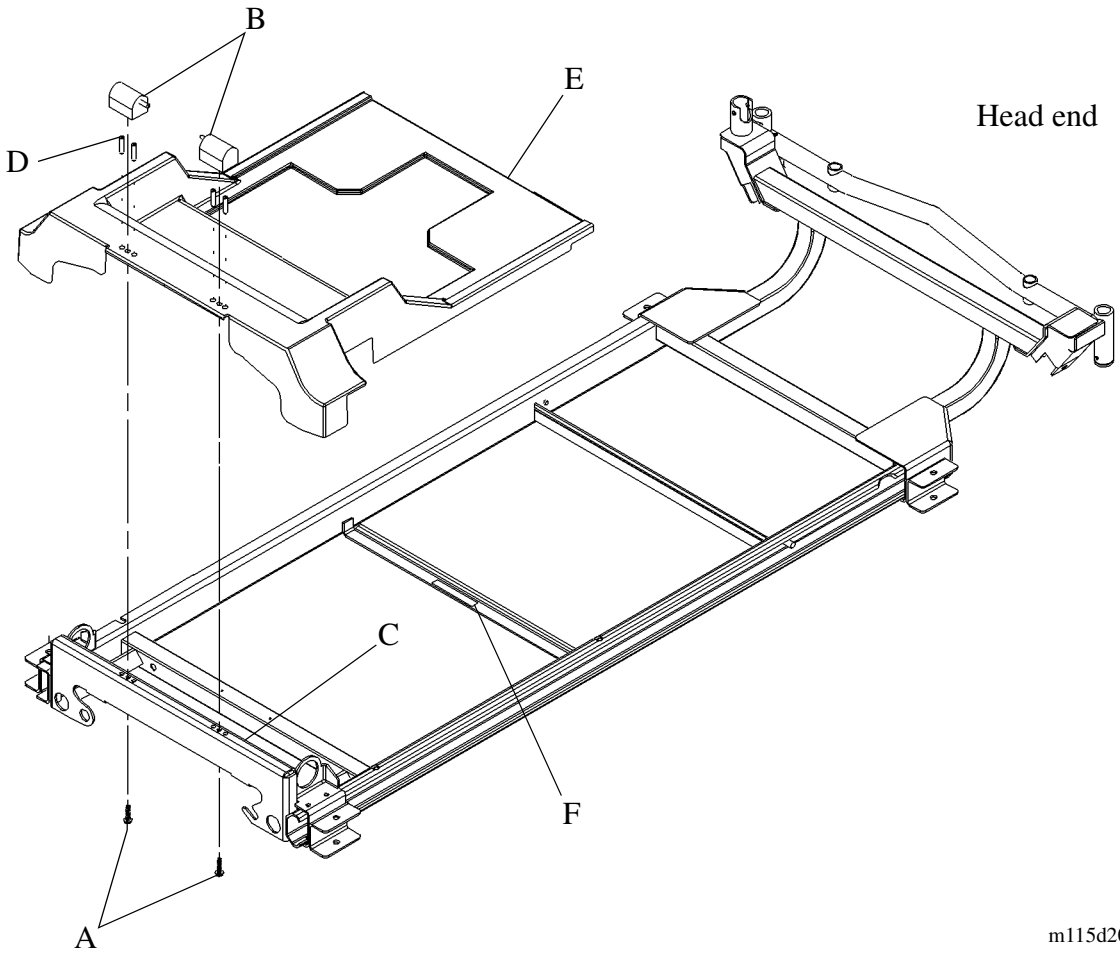
4.26 OB/GYN Stretcher Upper Frame Catch Shroud

Tools required: Rubber mallet/hammer Screwdriver

Removal

1. Using a screwdriver, remove the two screws (A) securing the foot section rest blocks (B) to the upper frame fixed weldment (C) (see figure 4-42 on page 4-82)

Figure 4-42. Upper Frame Catch Shroud



2. Using the rubber mallet/hammer, tap on the underside of the catch shroud to loosen the roll pins (D) securing the foot section rest blocks (B) to the upper frame fixed weldment (C).

NOTE:
The back of the catch shroud is held in place with a Velcro®[1] strip (F).

3. Remove the catch shroud (E) from the stretcher.

Replacement

NOTE:
The back of the catch shroud is held in place with a Velcro® strip.

1. Replace the catch shroud (E) by reversing the removal procedure.

2. Ensure that the catch shroud (E) seats firmly into position and makes contact with all Velcro® locations.

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

4.27 OB/GYN Stretcher Foot Support Mechlok®[1] Device

Tools required: Ratchet, 3/16" hex head bit, 1/8" hex head bit, Screwdriver, Retaining ring removal/installation tool

Removal

1. Remove the mattress assembly from the stretcher.

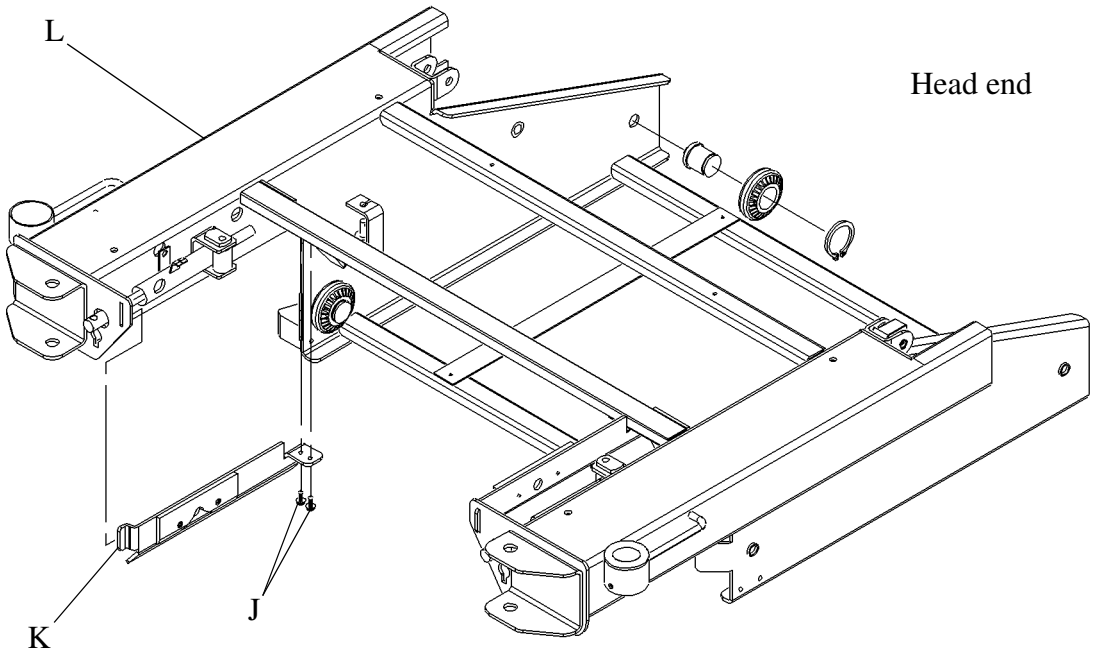
WARNING:
Make sure the stretcher is in the full flat position, and make sure it is secure. Failure to do so could result in personal injury or equipment damage.

2. Put the stretcher in the full flat position.

3. Remove the foot section from the stretcher.

4. Using the screwdriver, remove the two screws (J) that secure the foot section guide (K) to the upper frame carriage weldment (L) (see figure 4-43 on page 4-84).

Figure 4-43. Foot Section Guide

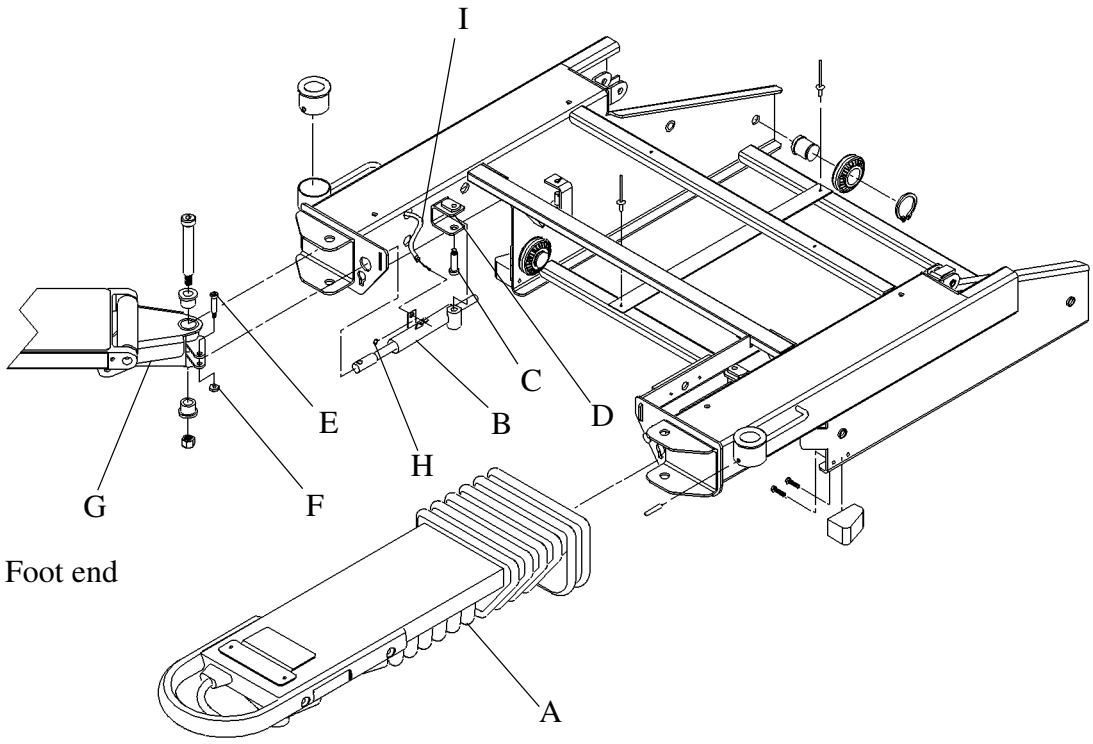


1. Mechlok® is a registered trademark of P. L. Porter Company.

5. Slide the foot section guide (K) toward the head end of the stretcher, and remove it from the stretcher.

6. Pull the foot support bellows (A) back and towards the foot end of the stretcher to expose the foot support Mechlok® device (B) (see figure 4-44 on page 4-85).

Figure 4-44. Foot Support Mechlok® Device



7. Using the ratchet and 3/16" hex head bit, remove the shoulder bolt (C) securing the foot support Mechlok® device (B) to the upper frame carriage weldment (D).

8. Using the ratchet, 1/8" hex head bit and adjustable wrench, remove the shoulder bolt (E) and locknut (F) securing the foot support Mechlok® device (B) to the foot support base weldment (G).

9. Using the retaining ring removal/installation tool, remove the retaining ring (H) that secures the foot support angle cable (I) to the foot support Mechlok® device (B).

10. Remove the foot support Mechlok® device (B) from the stretcher.

Replacement

Reverse the removal procedure to install the replacement foot support Mechlok® device.

4.28 OB/GYN Stretcher Foot Support Gas Spring

Tools required:	Ratchet	T30 Torx®[1] head bit
	Adjustable wrench	T25 Torx® head bit
	Phillips head screwdriver	5/32" hex head bit
	Screwdriver	Side cutters

Removal

1. Remove the mattress assembly from the stretcher.

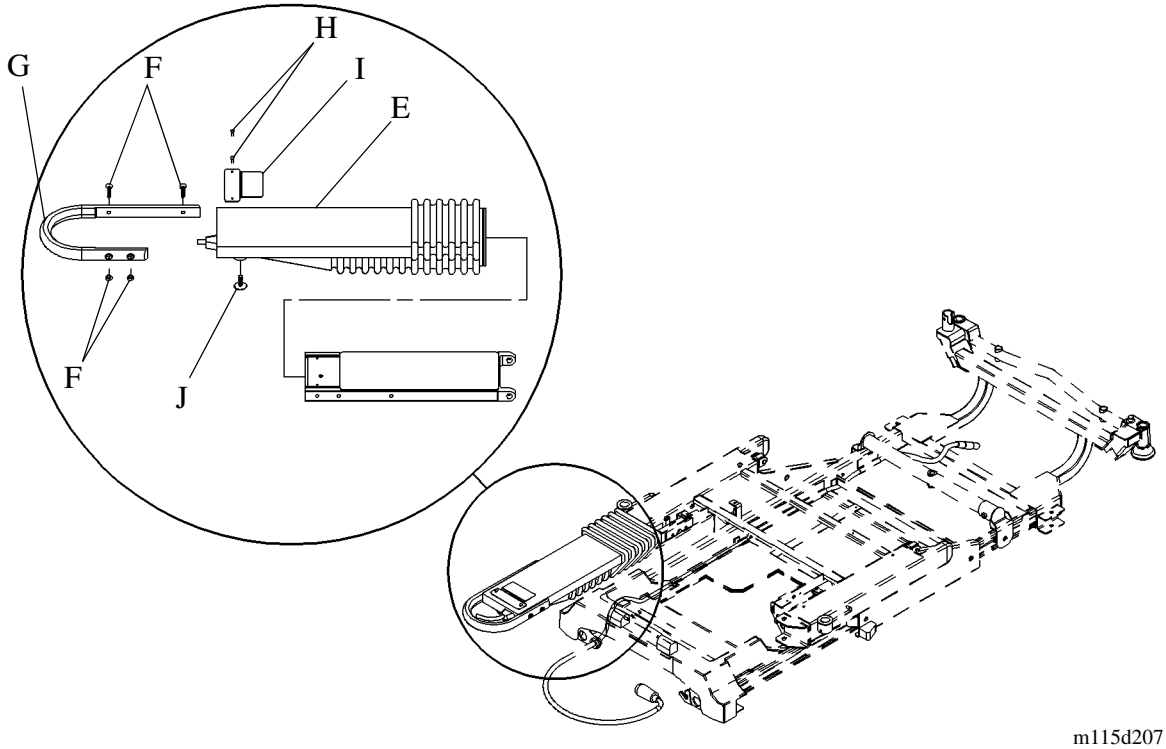
WARNING:
Make sure the stretcher is in the full flat position, and make sure it is secure. Failure to do so could result in personal injury or equipment damage.

2. Put the stretcher in the full flat position.

3. Remove the foot section from the stretcher.

4. Remove the foot support bellow by performing the following (see figure 4-45 on page 4-87):

Figure 4-45. Foot Support Bellows



m115d207

1. Torx® is a registered trademark of Textron, Inc.

a. Using the ratchet and T30 Torx® head bit, remove the four screws (F) securing the foot support bumper/handle (G) to the foot rest weldment (E).

b. Remove the foot support bumper/handle (G) from the foot support assembly.

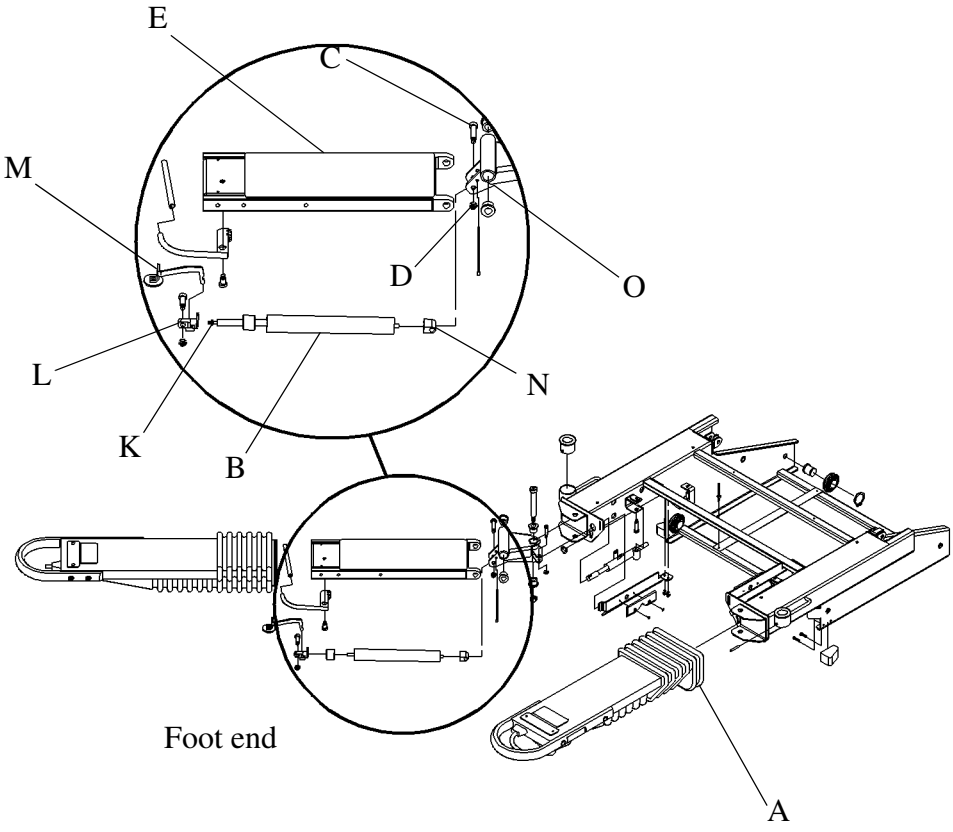
c. Using the ratchet and T25 Torx® head bit, remove the two screws (H) securing the mattress retainer (I) to the foot rest weldment (E).

d. Remove the mattress retainer (I) from the foot support assembly.

e. Using the side cutters, cut the ratchet fastener (J) off of the foot support assembly.

5. Pull and remove the foot support bellow (A) back, and towards the foot end of the stretcher to expose the foot support gas spring (B) (see figure 4-46 on page 4-88)

Figure 4-46. Foot Support Gas Spring



6. Remove and discard the remaining ratchet fastener from the release lever.

7. Using the adjustable wrench, loosen the jam nut (K) on the foot support gas spring (B).

8. Using the ratchet, 5/32" hex head bit, and adjustable wrench, remove the shoulder bolt (C), and locknut (D) that secure the foot support gas spring (B) to the footrest weldment (E).

9. Unscrew the foot support gas spring (B) from the release casting (L).

10. Remove the foot support gas spring (B) from the stretcher.

Replacement

CAUTION:
Do not rotate the gas spring rod with a clamping device. Damage to the rod can occur.

1. Screw the foot support gas spring (B) into the release casting (L) until the foot support release weldment (M) does not move.

2. When the foot support gas spring (B) is snug, give it a half-turn clockwise, or until the hole in the rod end (N) lines up with the hole in the foot support base weldment (O) to complete the installation.

3. Using the ratchet, 5/32" hex head bit, and adjustable wrench, loosely install the shoulder bolt (C) and locknut (D) that secure the foot support gas spring (B) to the foot support base weldment (O).

4. Check the operation of the foot support gas spring (B) and the foot support push release lever by performing the following steps:

   a. Check the operation of the foot support push release lever.

NOTE:
The foot support gas spring is to be adjusted so that when the foot support push release lever is engaged approximately half-way through its full travel, the foot support gas spring releases; and when the foot support push release lever is disengaged, the foot support gas spring is locked (secure). Ensure that the foot support push release lever does not release too early or with too little pressure applied to the handle, and that it returns to its original position.

   b. If adjustment to the foot support gas spring (B) is required, ensure that the jam nut (K) is installed loosely.

   c. Using the ratchet, 5/32" hex head bit, and adjustable wrench, remove the shoulder bolt (C) and locknut (D) that secure the foot support gas spring (B) to the foot rest weldment (E).

d. Rotate the foot support gas spring (B) clockwise or counterclockwise in half-turn increments to adjust.

e. Loosely install the shoulder bolt (C).

f. Check the operation of the foot support push release lever again, and repeat the adjustment procedure for the foot support gas spring (B) (if necessary).

g. When the foot support push release lever is functioning properly, install the locknut (D) located at the bottom of the foot support gas spring (B).

h. Using the adjustable wrench, tighten the jam nut (K).

5. Place the foot support bellow (A) into position.

6. Using the ratchet and T25 Torx® head bit, install the two screws (H) securing the mattress retainer (I) to the foot rest weldment (E) (see figure 4-45 on page 4-87).

7. Using the ratchet and T30 Torx® head bit, install the four screws (F) securing the foot support bumper/handle (G) to the foot rest weldment (E).

8. Install the new ratchet fastener (J).

9. Replace the foot section, and mattress assembly to complete the replacement procedure.

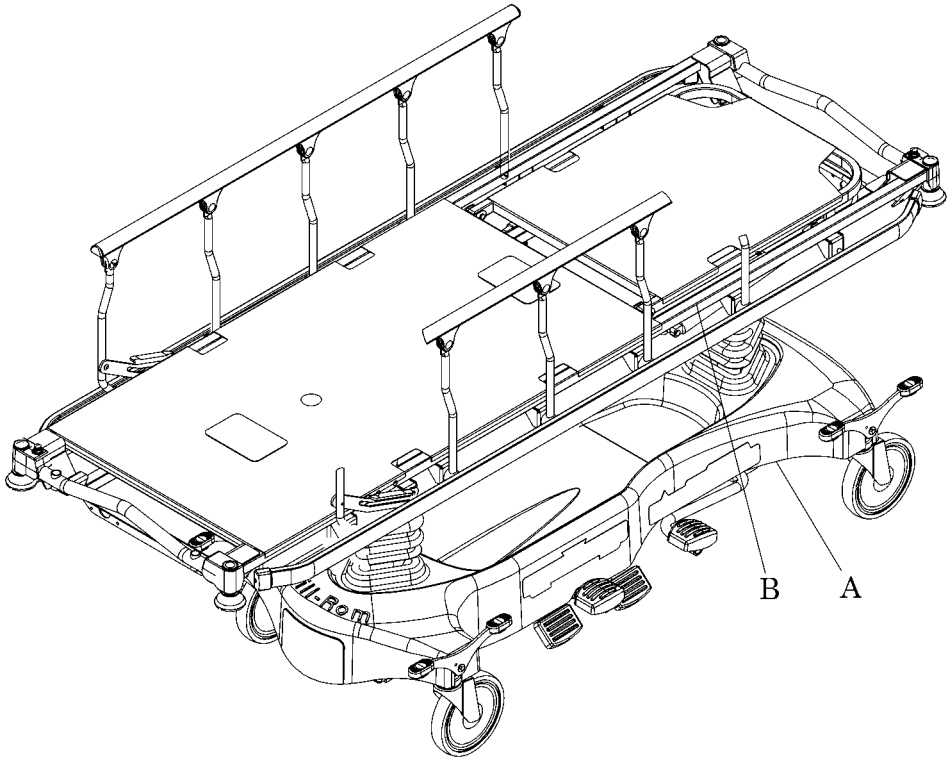
4.29 PC-100/PC-200 Procedural Stretcher Caster

Tools required:	Ratchet	7/16" socket
	T25 Torx®[1] head bit	Hammer
	Phillips head screwdriver	5/16" pin punch
	Torque wrench 0-250 in-lb	
	Blue Loctite®[2] (P/N SA3618) adhesive	
	8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber	

Removal

1. Pull the base shroud free of its Velcro®[3] fastenings, and secure the base shroud (A) to the upper frame (B) (see figure 4-47 on page 4-91).

Figure 4-47. PC-100/PC-200 Procedural Stretcher Shroud and Upper Frame



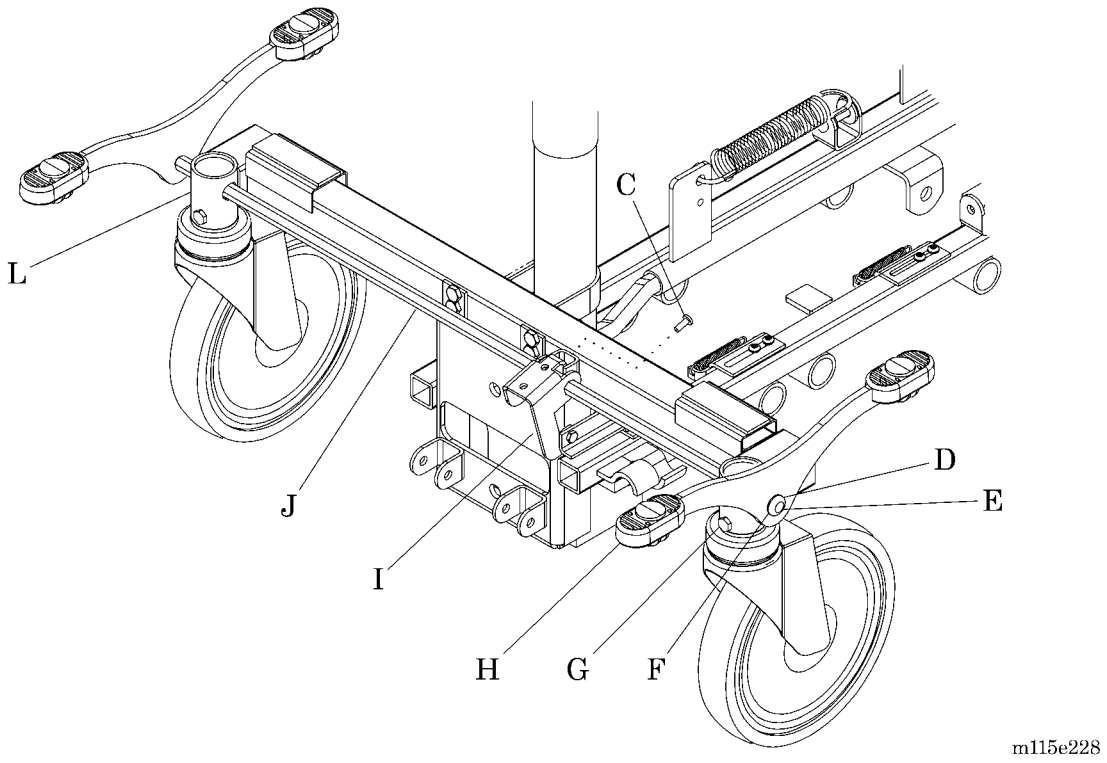
- If patient security straps are available, use them to secure the base shroud to the upper frame.
- If the patient security straps are not available, you can use rope, or you can remove the base shroud (refer to procedure 4.25).

1. Torx® is a registered trademark of Textron, Inc.
2. Loctite® is a registered trademark of Loctite Corporation.
3. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

2. Put the stretcher in the steer position by pressing down on the green steer pedal.

3. Using the phillips head screwdriver, remove the screw (C) from the brake/steer link (I) (see figure 4-48 on page 4-92).

Figure 4-48. PC-100/PC-200 Procedural Stretcher Caster Replacement



4. Put the stretcher in the neutral position.

5. Using the ratchet and T25 Torx® head bit, remove the cap plug (D), the lock head screw (E), and cap plug retainer (F) on the pedal assembly (H).

6. Remove the pedal assembly (H).

7. Using the hammer and the 5/16" pin punch, gently tap the hex rod (J) out of the old caster.

8. Using the ratchet and 7/16" socket, remove the caster screw (G).

WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

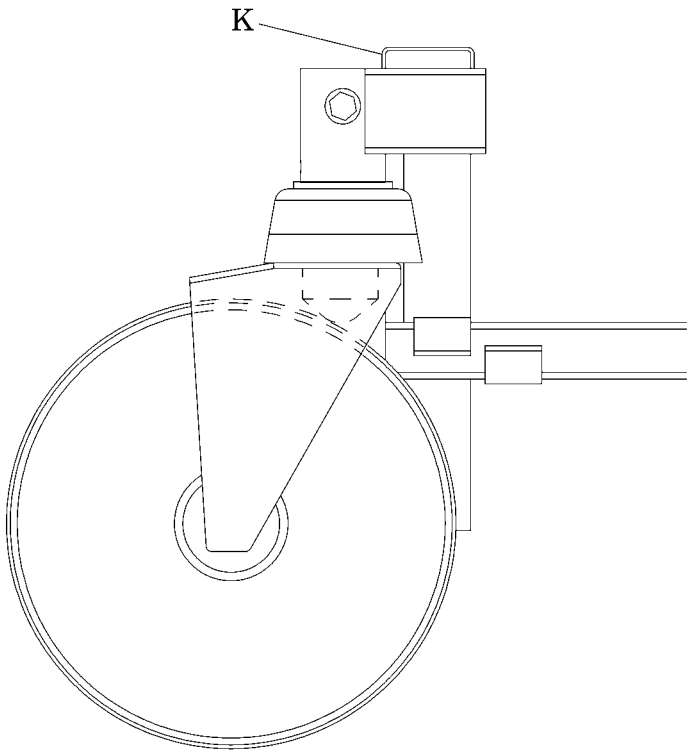
9. Lift the corner of the stretcher, and temporarily block it up with the 8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber.

10. Remove the caster.

Replacement

1. Align the caster with the color mark (K) on the base of the stretcher. (see figure 4-49 on page 4-93).

Figure 4-49. PC-100/PC-200 Procedural Stretcher Caster Brake Orientation



m115e229

2. Slide the caster into the base of the stretcher (L) (see figure 4-48 on page 4-92).

3. Using the ratchet and 7/16" socket, install the caster screw (G), and use blue Loctite® adhesive to ensure that the screw will stay in place.

4. Using the torque wrench, torque the caster screw (G) to 46 $\pm$ 6 in-lb (5.2 $\pm$ 0.7 N·m).

5. Using the hammer and the punch, tap the hex rod (J) back into place so that the hole in the hex rod aligns with the screw hole in the brake/steer link (I).

6. Replace the pedal assembly (H).

7. Using the ratchet and T25 Torx® head bit, install and tighten the cap plug retainer (F), the lock head screw (E) and a **new** cap plug (D).

8. Remove the 8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber.

9. Put the stretcher in the steer position by pressing down on the green steer pedal.

10. Using the phillips head screwdriver, install the brake/steer link screw (C).

11. Unfasten the base shroud and return it to its normal position, ensuring that it seats firmly into place and makes contact with all Velcro® strips.

4.30 PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Caster

Tools required:

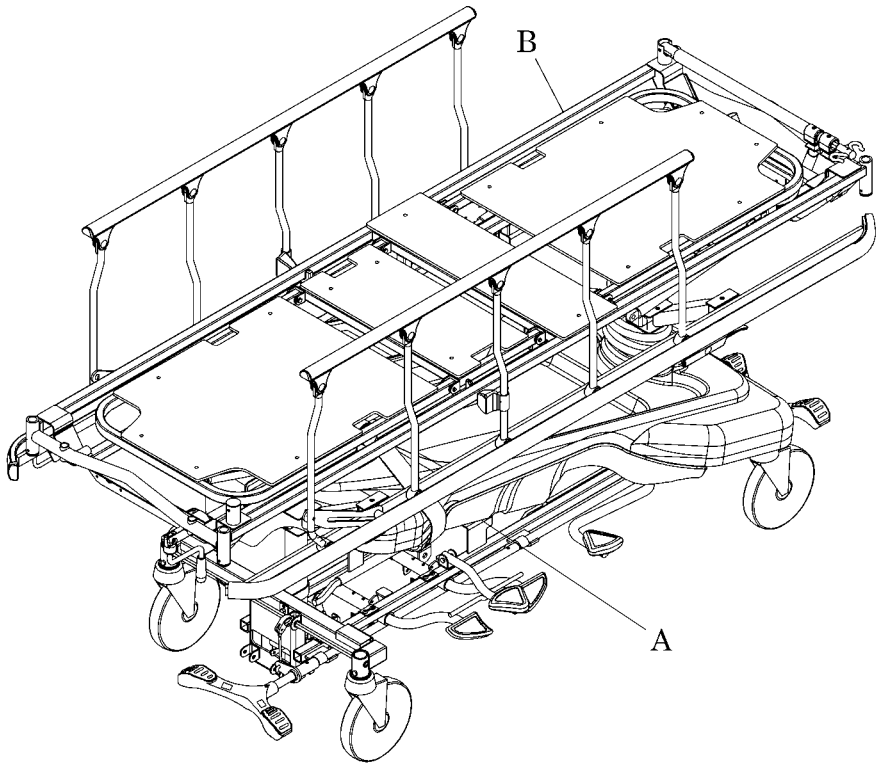
Ratchet	Hammer
7/16" socket	5/16" pin punch
13 mm socket*	1/8" hex head bit

Torque wrench 0-250 in-lb
Blue Loctite®[1] (P/N SA3618) adhesive
8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber
*(surgical stretcher only)

Removal

1. Pull the base shroud (A) free of its Velcro®[2] fastenings, and secure it to the upper frame (B) (see figure 4-50 on page 4-95).

Figure 4-50. Base Shroud Secured to Upper Frame



m115e047

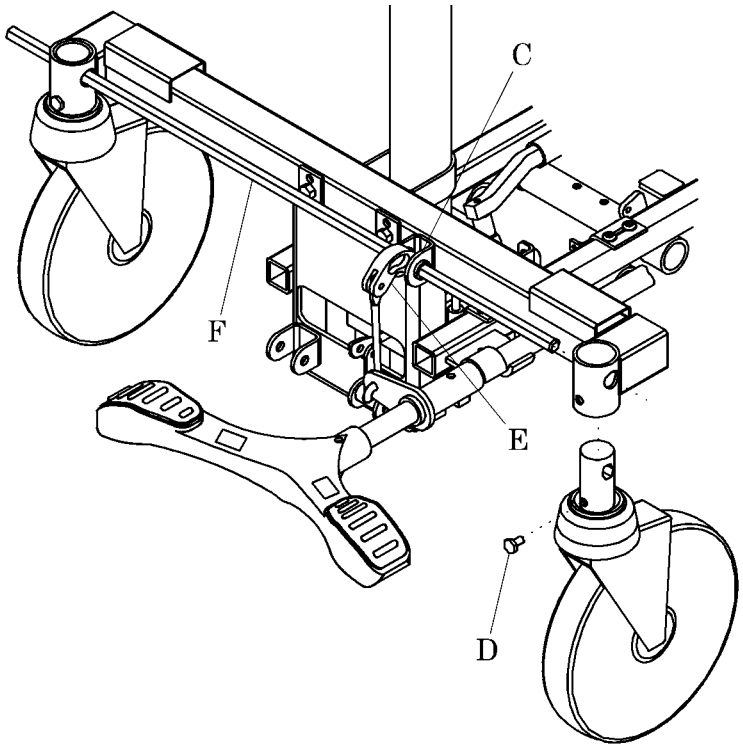
1. Loctite® is a registered trademark of Loctite Corporation.
2. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

- If patient security straps are available, use them to secure the base shroud to the upper frame.
- If the patient security straps are not available, you can use rope, or you can remove the base shroud (refer to procedure 4.25).

2. Put the stretcher in the steer position.

3. Using the ratchet and 1/8" hex head bit, remove the setscrew (C) from the rocker link (E) (see figure 4-51 on page 4-96).

Figure 4-51. Caster Replacement



4. Put the stretcher in the neutral position.

5. Using the hammer and the 5/16" pin punch, gently tap the hex rod (F) out of the old caster.

6. Using the ratchet and 7/16" socket, remove the caster screw (D).

NOTE:
Use the 13 mm socket to remove the caster screw from the **surgical stretcher only**.

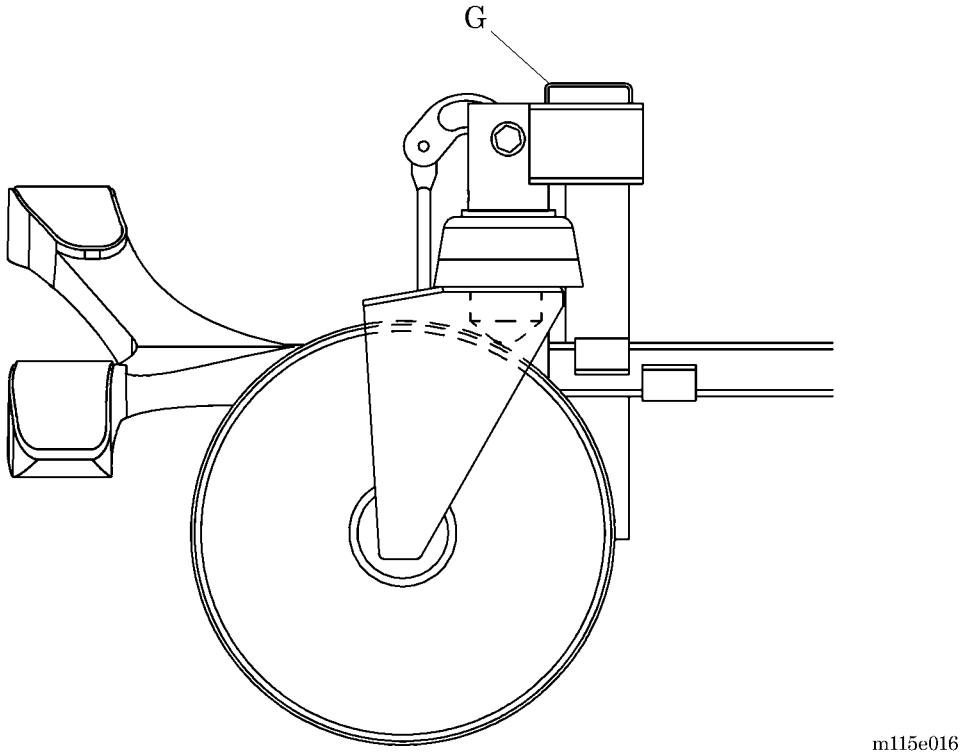
WARNING:
Use two people for this procedure. Failure to do so could result in personal injury and equipment damage.

7. Lift the corner of the stretcher, and temporarily block it up with the 8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber.

Replacement

1. Align the caster with the color mark (G) on the base of the stretcher (see figure 4-52 on page 4-97).

Figure 4-52. Caster Brake Orientation



2. Slide the caster into the base of the stretcher (see figure 4-51 on page 4-96).

3. Using the ratchet and 7/16" socket, install the caster screw (D), and use blue Loctite® adhesive to ensure that the screw will stay in place.

NOTE:
Use the 13 mm socket to install the caster screw on the **surgical stretcher only**.

4. Using the torque wrench, torque the caster screw (D) to 46 ± 6 in-lb (5.2 ± 0.7 N·m).

5. Using the hammer and the 5/16" pin punch, tap the hex rod (F) back into place. Locate the hex rod (F) so that each end of the rod is flush with the outer edge of the casters.

6. Remove the 8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber.

7. Put the stretcher in the steer position by pressing down on the green steer pedal.

8. Using the ratchet and 1/8" hex head bit, install the setscrew (C) into the rocker link (E).

9. Using the torque wrench, torque the setscrew (C) to 46 ± 6 in-lb (52 ± 7 N·m).

10. Unfasten the base shroud (A) and return it to its normal position, ensuring that it seats firmly into place and makes contact with all Velcro® strips.

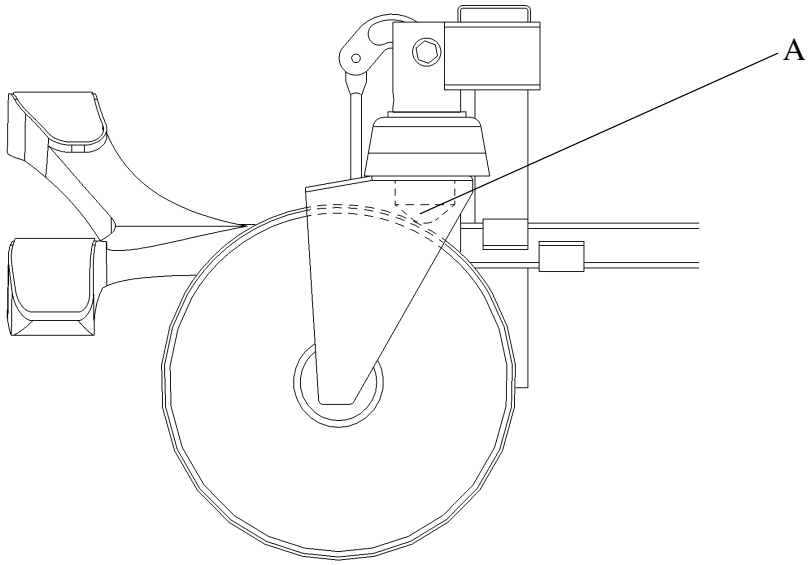
4.31 Caster Brake

Tools required: Hammer 3/16" pin punch
0.070" feeler gauge

Adjustment

1. Ensure that the brake/steer pedal is in the neutral position.
2. Using the 3/16" pin punch and hammer, gently spin the brake shoe (A) clockwise to tighten and counterclockwise to loosen (see figure 4-53 on page 4-99).
3. Adjust the gap between the brake shoe and the wheel to 0.073" $\pm$ 0.023" (1.85 mm $\pm$ 0.58 mm).
4. Using the 0.070" feeler gauge, check the gap between the brake shoe and the wheel.

Figure 4-53. Caster Brake Adjustment



m115_016

4.32 Hydraulic Cylinder

Tools required:	Ratchet	9/16" socket
	Torque wrench 0-250 in-lb	7/16" socket
	5/32" Allen™[1] wrench	1/8" hex head bit
	9/16" open end wrench	Rubber mallet/hammer
	7/16" open end wrench	

Removal

NOTE:
If the stretcher will not raise, use the quick Trendelenburg/Reverse Trendelenburg feature (lift).

1. Raise the stretcher to the high position and remove the upper frame (refer to procedure 4.23).

2. Remove the base shroud and bellows (refer to procedure 4.25).

3. Using the 5/32" Allen™ wrench, remove the pump linkage shoulder bolt (G) that secures the linkage to the hydraulic cylinder (I) (see figure 4-54 on page 4-101).

4. Using the 7/16" open end wrench, the ratchet, and the 7/16" socket, remove the four locknuts (C), the four bolts (E), and the two washers (F) that secure the hydraulic cylinder (I) to the side tubes of the lower frame.

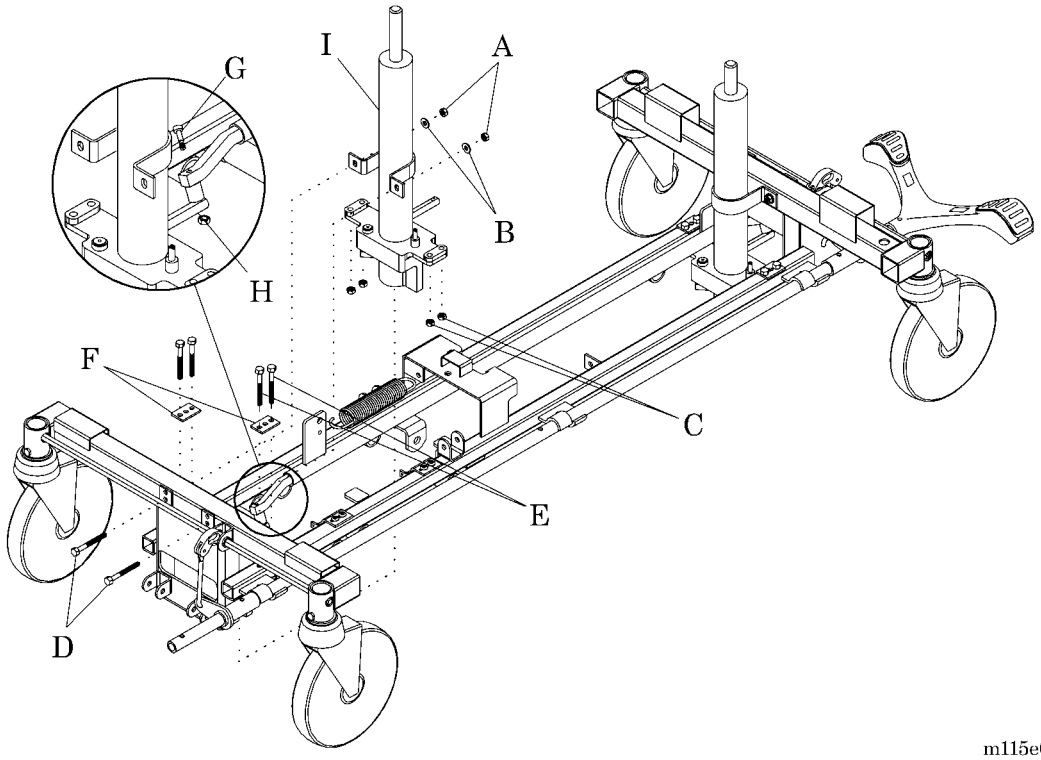
5. Using the 7/16" open end wrench, the ratchet, and the 7/16" socket, remove the two locknuts (A) and the washers (B) that secure the hydraulic cylinder (I) to the cross tube of the lower frame.

WARNING:
Ensure that you use proper lifting methods. Failure to do so could result in personal injury and equipment damage. The weight of the lower frame will act as counterweight during the lifting process. One person can safely perform this procedure.

6. Lift the lower frame, and remove the hydraulic cylinder (I).

1. Allen™ is a trademark of Industrial Fasteners, Inc.

Figure 4-54. Hydraulic Cylinder



Replacement

WARNING:
Ensure that you use proper lifting methods. Failure to do so could result in personal injury and equipment damage. The weight of the lower frame will act as counterweight during the lifting process. One person can safely perform this procedure.

WARNING:
Ensure that you use the hydraulic cylinder with the correct part number for this product. The surgical stretcher uses a hydraulic cylinder that has a slower descent rate, but the replacement procedure is the same. Be sure to use the correct hydraulic cylinder. Failure to do so could result in personal injury.

CAUTION:
Leave the cylinder rod hold-down assembly in place until the hydraulic cylinder is secured to the frame assembly. Failure to do so could result in equipment damage.

1. Lift the lower frame, and place the new hydraulic cylinder (I) into position.

2. Using the 7/16" open end wrench, the ratchet, and the 7/16" socket, install the two washers (B) and locknuts (A) to secure the hydraulic cylinder (I) to the cross tube of the lower frame.

3. Using the 7/16" open end wrench, the ratchet, and the 7/16" socket, install two washers (F), four bolts (E), and the four locknuts (C) to secure the hydraulic cylinder (I) to the side tubes of the lower frame.

4. Using the torque wrench, torque the nuts (A) and (C) to 65 $\pm$ 10 in-lb (7.3 $\pm$ 1.1 N·m).

5. Using the 5/32" Allen™ wrench, install the pump linkage shoulder bolt (G).

6. Using the torque wrench, torque the shoulder bolt (G) to 46 $\pm$ 6 in-lb (5.2 $\pm$ 0.7 N·m).

7. Remove the cylinder rod hold-down assembly from the hydraulic cylinder (I).

8. Install the base shroud and bellows (refer to procedure 4.25).

9. Install the upper frame (refer to procedure 4.23).

10. **Check the cylinder release adjustment (see "Adjustment" on page 4-103)**.

11. Raise the stretcher to the high position. If more than 28 pumps (24 for the PC-100/PC-200 stretcher) are required to raise the stretcher to the high position, purge the hydraulic cylinders as follows.

    a. Push a release pedal, and lower the stretcher to the low position.

    b. Hold a release pedal down, and pump a pump pedal approximately 30 times.

12. Raise the stretcher to the high position. If more than 28 pumps (24 for the PC-100/PC-200 stretcher) are required to raise the stretcher to the high position, repeat the purge procedure until the stretcher can be raised to the high position with only 28 pumps (24 for the PC-100/PC-200 stretcher) or less.

13. Lower the stretcher to the low position, and verify that the hydraulic cylinders are descending at the same rate.

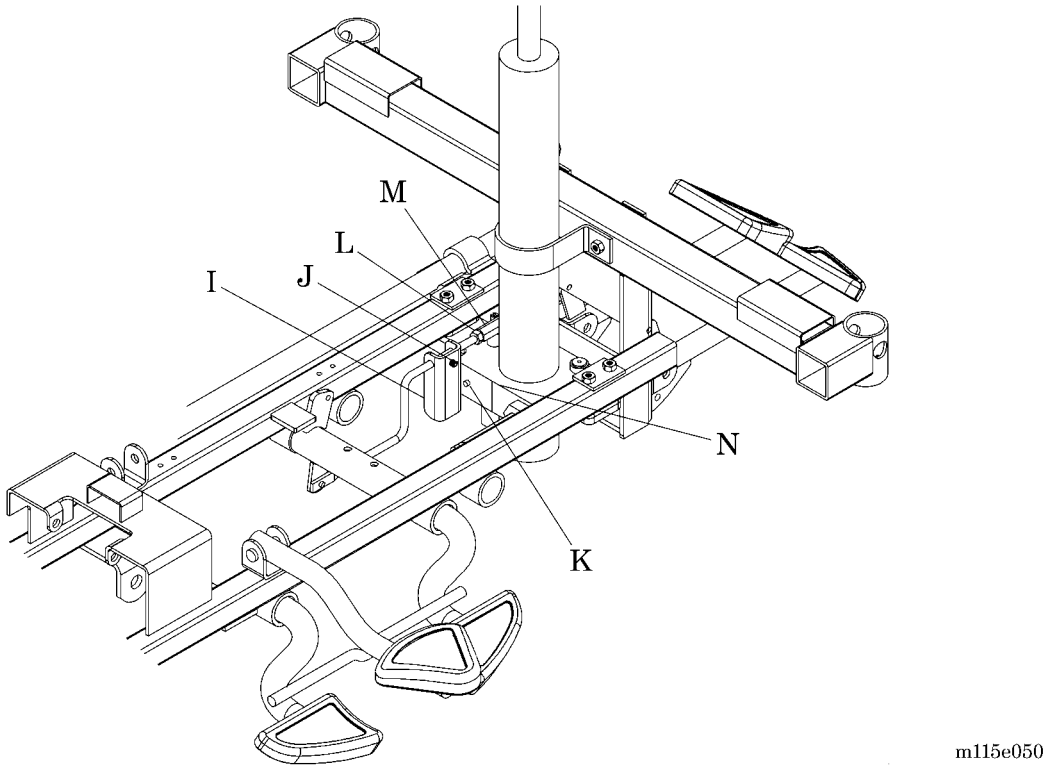
Adjustment

Side Pedals

1. Press either center release pedal until the pedal stop comes in contact with the base frame.

2. With the pedal depressed, slide the plunger (I) toward the hydraulic cylinder until the cylinder release pin (K) is fully depressed, and the plunger (I) is flush with the cylinder pump housing (N) (see figure 4-55 on page 4-103).

Figure 4-55. Cylinder Release Mechanism



3. Ensure that the plunger (I) is centered on the cylinder release pin (K). Using the ratchet and 1/8" hex head bit, tighten the screw (J) that holds the plunger in place.

4. Using the torque wrench, torque the screw (J) to 40 $\pm$ 6 in-lb (4.5 $\pm$ 0.7 N·m).

5. Repeat step 1 through step 4 for the other plunger (I).

6. Check for proper operation of all pedals.

Foot-End Pedals

1. Perform step 1 through step 6 of “Side Pedals” on page 4-103.
2. Using the 7/16" open end wrench, loosen the jam nut (L) that locks the turnbuckle (M) in place (see figure 4-55 on page 4-103).
3. Push the foot-end Trendelenburg pedal down until the pedal stop comes in contact with the base frame.
4. With the pedal depressed, use the 7/16" open end wrench to adjust the turnbuckle (M) until the cylinder release pin (K) is fully depressed, and the plunger (I) is flush with the cylinder pump housing (N).
5. Using the 7/16" open end wrench, tighten the jam nut (L) that locks the turnbuckle (M) in place.
6. Repeat step 2 through step 5 for the foot-end Reverse Trendelenburg pedal.
7. Check for proper operation of both pedals.

4.33 Steering Plus™ Steering System Assembly (Old Style)

Tools required: Pliers
6" straight edge
3/8" open end wrench
Retaining ring removal/installation tool

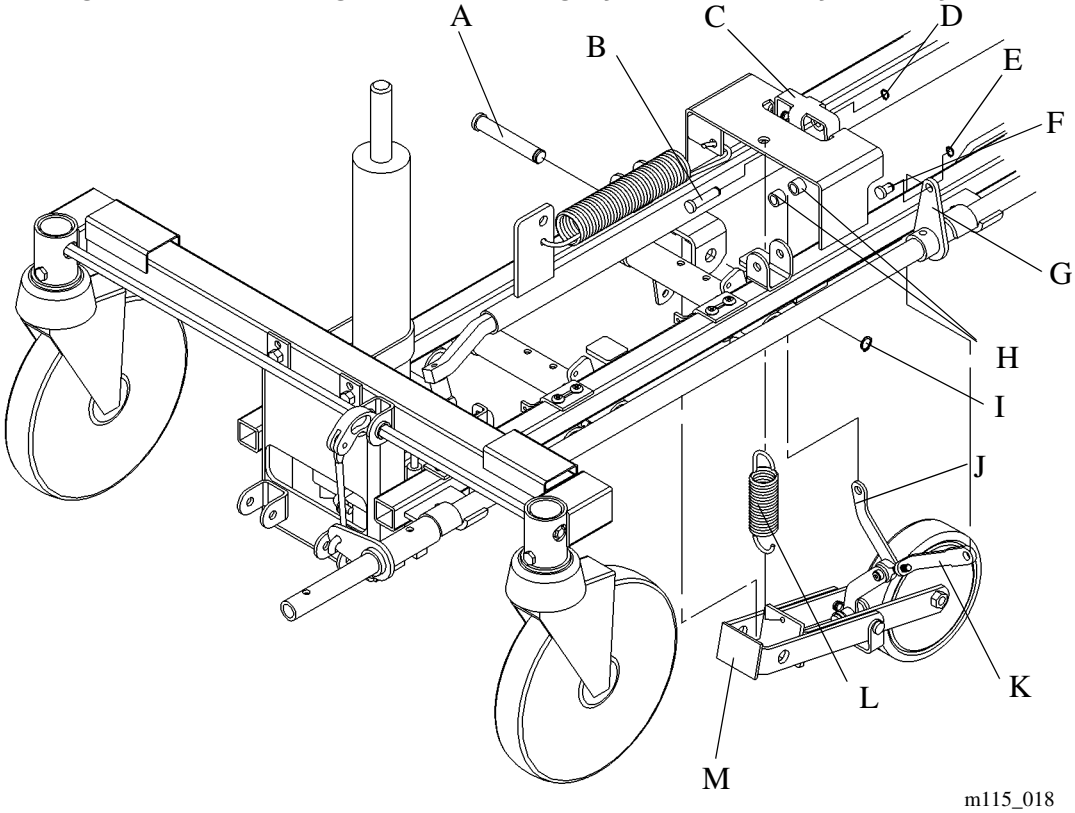
Removal

1. Raise the stretcher to the high position.

2. Secure the base shroud to the upper frame to ensure clearance for the fifth wheel assembly removal procedure. See “PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Caster” on page 4-95.

3. Disconnect the spring (L) from the frame (see figure 4-56 on page 4-105).

Figure 4-56. Steering Plus™ Steering System Assembly (Old Style)



CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

4. Using the retaining ring removal/installation tool, remove the retaining ring (D) from the headed pin (B) that secures the pivot arm (J) and spacers (H) to the pivot link (C).

5. Using the 3/8" open end wrench, remove the locknut (E) from the bolt (F) that secures the pivot bracket (K) to the wheel link weldment (G).

6. Using the retaining ring removal/installation tool, remove the retaining ring (I) from the headed pin (A) that secures the fifth wheel assembly (M) to the frame.

7. Remove the fifth wheel assembly (M).

Replacement

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

NOTE:
During replacement, do not overextend the retaining rings.

1. Perform the removal procedure in reverse order.

2. Check the alignment of the center steer caster (see “Adjustment” on page 4-106).

Adjustment

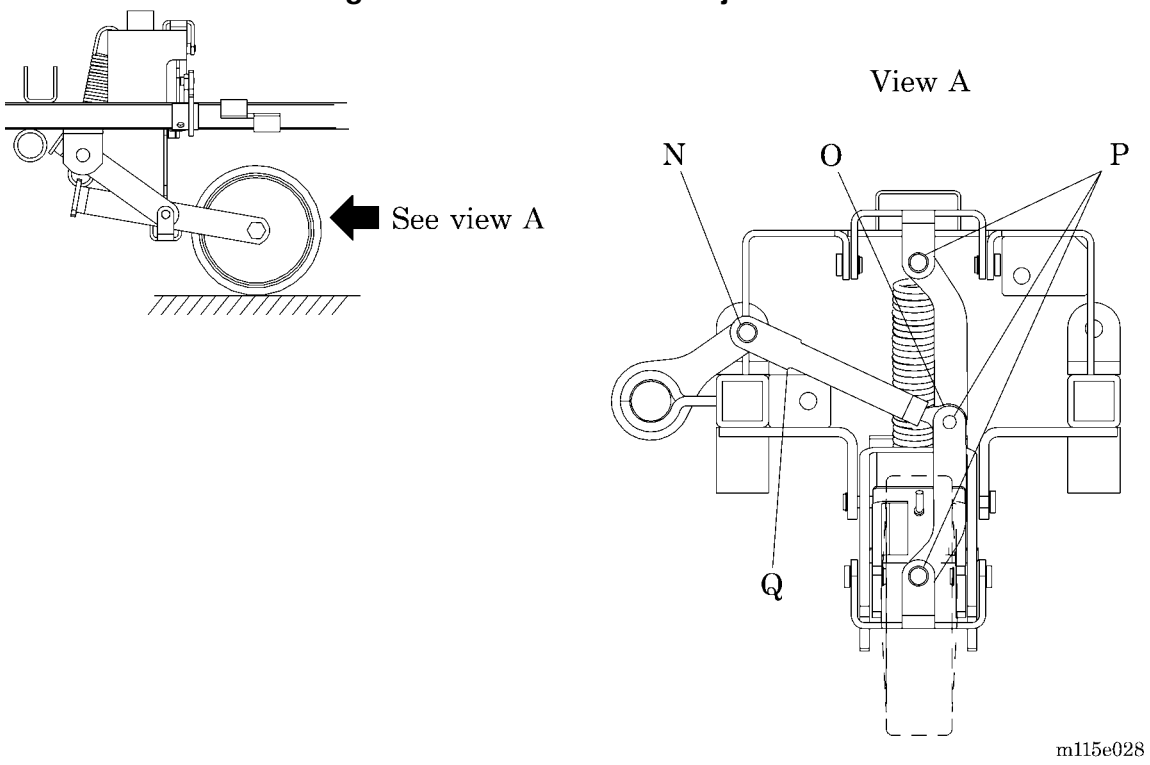
1. Put the casters in the steer position.

2. Using a 6" straight edge, ensure that the three linkage pivots (P) are over center (see figure 4-57 on page 4-107).

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

3. Using the retaining removal/installation tool, remove the retaining ring and the headed pin (N) from the pivot bracket (Q).
4. Turn the rod end (O) clockwise or counterclockwise to adjust the linkage alignment.

Figure 4-57. Center Steer Adjustment



WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

5. Using the retaining ring removal/installation tool, install the headed pin and the retaining ring (N). Using a 6" straight edge, ensure that the three linkage pivots (P) are over center.
6. Put the stretcher in the steer position, and check for proper operation.
7. Put the stretcher in the brake position, and ensure that the center caster is 3½" (89 mm) above the floor.

4.34 Steering Plus™ Steering System Assembly (New Style)

Tools required: Pliers; 3/8" open end wrench; 1/8" Allen™[1] wrench; 6" straight edge; Retaining ring removal/installation tool

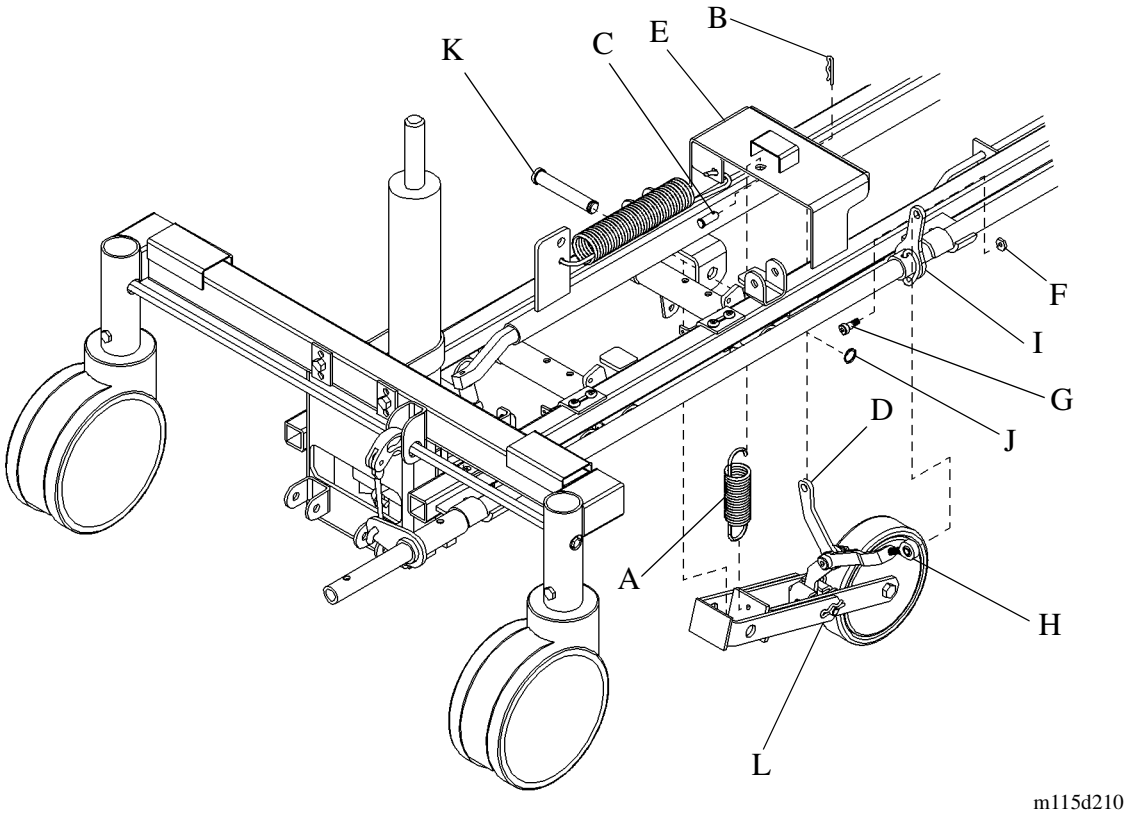
Removal

1. Raise the stretcher to the high position.

2. Secure the base shroud to the upper frame to ensure clearance for the fifth wheel assembly removal procedure. See “PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/ OB/GYN/Electric Stretcher Caster” on page 4-95.

3. Using the pliers, disconnect the spring (A) from the frame (see figure 4-58 on page 4-108).

Figure 4-58. Steering Plus™ Steering System Assembly (New Style)



1. Allen™ is a trademark of Industrial Fasteners, Inc.

4. Using the pliers, remove the hair clip pin (B) from the pin (C) that secures the pivot arm (D) to the stretcher frame (E).

5. Using the 3/8" open end wrench and 1/8" Allen™ wrench, remove the locknut (F) from the shoulder bolt (G) that secures the rod end (H) to the fifth wheel arm weldment (I).

CAUTION:
Do not overextend the retaining rings. If the retaining rings are overextended, use new ones for the installation. Failure to do so could result in equipment damage.

6. Using the retaining ring removal/installation tool, remove the retaining ring (J) from the headed pin (K) that secures the fifth wheel assembly (L) to the stretcher frame.

7. Remove the fifth wheel assembly (L) from the stretcher.

Replacement

WARNING:
Do not use retaining rings that are overextended. Personal injury and equipment damage could occur.

NOTE:
During replacement, do not overextend the retaining rings.

1. Reverse the removal procedure to install the replacement fifth wheel assembly (L).

2. Check the alignment of the center steer caster (see “Adjustment” on page 4-106).

NOTES:

Chapter 5
Parts List

Chapter Contents

Warranty . . . . . 5 - 5
Service Parts Ordering . . . . . 5 - 7
Exchange Policy . . . . . 5 - 10
In-Warranty Exchanges . . . . . 5 - 10
Out-of-Warranty Exchanges . . . . . 5 - 10
Recommended Spare Parts . . . . . 5 - 11
PC-100/PC-200 Procedural Stretcher Base Assembly . . . . . 5 - 12
PC-300–PC-550 Procedural/Electric/Trauma/OB/GYN Stretcher Base Assembly5 - 16
Surgical Stretcher Base Assembly . . . . . 5 - 20
Fixed Height Stretcher Base Assembly . . . . . 5 - 24
Fixed Height Stretcher Upper Frame Column Weldment and Base Shroud . . . . 5 - 28
Pedals (Stretchers With Side Pedals) . . . . . 5 - 30
Pedals (Stretchers With Side and Foot-End Pedals) . . . . . 5 - 34
Pedals (Stretchers With Foot-End Pedals) . . . . . 5 - 38
Steering Plus™ Steering System (Old Style) . . . . . 5 - 42
Steering Plus™ Steering System (New Style) . . . . . 5 - 46
PC-100/PC-200 Procedural Stretcher Upper Frame Assembly . . . . . 5 - 48
PC-300–PC-550 Procedural Stretcher Upper Frame Assembly . . . . . 5 - 52
PC-300–PC-550 Procedural Stretcher Upper Frame Panel Assembly . . . . . 5 - 56
Surgical Stretcher Upper Frame Assembly . . . . . 5 - 60
Surgical Stretcher Upper Frame—Articulating Headrest . . . . . 5 - 64
OB/GYN Stretcher Upper Frame Assembly (Sheet 1 of 2) . . . . . 5 - 66
OB/GYN Stretcher Upper Frame Assembly (Sheet 2 of 2) . . . . . 5 - 70
OB/GYN Stretcher Upper Frame Panel Assembly . . . . . 5 - 72

5

Fixed Height Stretcher Upper Frame Assembly . . . . . 5 - 76
Trauma Stretcher Upper Frame Assembly . . . . . 5 - 80
Trauma Stretcher Upper Frame Panel Assembly . . . . . 5 - 82
Trauma Stretcher Upper Frame Labels . . . . . 5 - 84
Electric Stretcher Upper Frame Assembly . . . . . 5 - 86
Electric Stretcher Mattress Weldment . . . . . 5 - 90
Electric Stretcher Head and Knee Drive Assembly . . . . . 5 - 92
Electric Stretcher Head Drive/CPR Assemblies . . . . . 5 - 94
Electric Stretcher Gearbox Assembly . . . . . 5 - 96
Electric Stretcher Cable/Wire Routing With Bolt-on Electric Box . . . . . 5 - 98
Electric Stretcher Cable/Wire Routing With Welded-on Electric Box . . . . . 5 - 100
Electric Stretcher Cable/Wire Assemblies With Bolt-on Electric Box . . . . . 5 - 102
Electric Stretcher Cable/Wire Assemblies With Welded-on Electric Box . . . . . 5 - 104
Electric Stretcher Control Board Assembly (120V AC and 230V AC) . . . . . 5 - 106
PC-300–PC-550 Procedural/Fixed Height/Trauma Stretcher Siderail Assembly 5 - 110
Surgical Stretcher Siderail Assembly . . . . . 5 - 114
Electric Stretcher Siderail Assembly . . . . . 5 - 118
OB/GYN Stretcher Siderail Assembly . . . . . 5 - 122
PC-100/PC-200 Procedural Stretcher IV Pole Module . . . . . 5 - 126
PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/OB/GYN/
Electric Stretcher IV Pole Module . . . . . 5 - 128
Head/Footboard—P4120CT . . . . . 5 - 130
Convertible Footboard—P350CT . . . . . 5 - 132
IV Transporter—P491 . . . . . 5 - 134
Liquid Oxygen Tank Holder—P273 . . . . . 5 - 136
Oxygen Tank Holder—P276 . . . . . 5 - 138
ISS Socket Adapter—P163 . . . . . 5 - 139
IV Pole—P2217 and ISS Transfer Pole—P158 . . . . . 5 - 140
Security Straps—P349 . . . . . 5 - 142
Push Handles . . . . . 5 - 144
Armboard—P344AT . . . . . 5 - 146
Stirrup Assembly—P347AT . . . . . 5 - 148

Trauma Stretcher Upright Chest Assembly—P279AT (Old Style) . . . . . 5 - 150
Trauma Stretcher Upright Chest Assembly—P279AT (New Style) . . . . . 5 - 152
Trauma Stretcher Lateral Cassette Holder—P264 . . . . . 5 - 154
Surgical Stretcher PACU Extender—P261 . . . . . 5 - 156
Surgical Stretcher Head Positioning Strap—P449 . . . . . 5 - 159
Surgical Stretcher Superior Wrist Rest—P262A01 . . . . . 5 - 160
Surgical Stretcher Temporal Wrist Rest—P262A02 . . . . . 5 - 162
OB/GYN Stretcher Integrated Fiber Optic Exam Light—P7915AT . . . . . 5 - 164
OB/GYN Stretcher Placenta Basin—P265. . . . . 5 - 166
OB/GYN Stretcher Telescoping Calf Support—P35745AT . . . . . 5 - 168
Mattresses . . . . . 5 - 170

NOTES:

Warranty

HILL-ROM COMPANY, INC.
TRANSTAR® SERIES STRETCHER(S)
LIMITED WARRANTY

Hill-Rom Company, Inc. (Hill-Rom) has a long tradition of providing superior products and service to our customer. Our goal is "Total Customer Satisfaction". In that spirit, Hill-Rom is proud to offer the following warranty.

GENERAL WARRANTY (APPLICABLE UNLESS A SPECIFIC WARRANTY IS LISTED)

Hill-Rom warrants to the original purchaser that its TranStar® Series Stretcher(s) shall be free from defects in material and workmanship for a period of three (3) years from date of delivery. In addition, during the first year of the warranty period, Hill-Rom shall provide service free of charge. Hill-Rom's obligation under this warranty is expressly limited to supplying replacement parts and/or service for, or replacing, at its option, any product which is, in the sole discretion of Hill-Rom, found to be defective. In addition to the foregoing warranty, Hill-Rom warrants to the original purchaser that the frame and welds on its products will be free from structural defects for the life of the product. Any product upgrade or modification initiated by Hill-Rom does not affect the original product warranty.

SPECIFIC WARRANTIES

MATTRESS WARRANTIES

Hill-Rom warrants to the original purchaser that its mattress product shall be free from defects in material and workmanship for a period of two (2) years from date of delivery.

EXPENDABLES WARRANTIES

A sixty (60) day limited warranty from date of delivery applies to expendable parts such as cushions, coverlets, software diskettes, locator badge batteries, dome light incandescent bulbs, overhead fluorescent tubes, heating elements, temperature probes, filter sheets, and microspheres. This warranty is limited to replacement of the parts covered.

TO OBTAIN PARTS AND SERVICE

In the United States, call Hill-Rom Technical Support Department at (800) 445-3720, Monday through Friday. In Canada, call Hill-Rom Technical Support Department at (800) 267-2337, Monday through Friday. Outside the United States and Canada, call your authorized Hill-Rom Distributor. In order to expedite service, we request you furnish the following information: customer identification number, product model number, serial number, and description of problem. A qualified specialist will provide, via telephone (United States and Canada), or FAX (Outside the United States and Canada), troubleshooting assistance for facility personnel and provide necessary parts to make repairs. If troubleshooting determines the need for on-site technical service, a qualified service representative will be dispatched. Replacement of non-technical items will be the responsibility of the customer. If requested by Hill-Rom, products or parts for which a warranty claim is made shall be returned prepaid to Hill-Rom's factory.

OUT OF WARRANTY EXCHANGE POLICY

After the expiration of the original warranty, upon request, Hill-Rom will ship as a replacement, components such as selected motors and printed circuit boards, for like units returned to Hill-Rom by the original purchaser at a substantial savings. Please call Hill-Rom Technical Support Department for current pricing.

PARTS AVAILABILITY POLICY

Hill-Rom will offer parts for new and remanufactured products for ten (10) years from date of sale.

Note: Some original component parts and assemblies may not be available; functional equivalents may be substituted.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE. HILL-ROM'S OBLIGATION UNDER THESE WARRANTIES SHALL NOT INCLUDE ANY LIABILITY FOR LOSS OF PROFITS, DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES OR DELAYS. Some states, provinces, or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply. Any improper or negligent use, any alterations or repairs not in accordance with Hill-Rom's manuals or performed by others in such manner as in Hill-Rom's sole judgment affects the product materially and adversely, shall void these warranties. These warranties do not cover failures due to misuse, abuse, neglect, or lack of routine maintenance. No employee or representative of Hill-Rom is authorized to change these warranties in any way or grant any other warranty unless in writing and signed by a Hill-Rom officer. These warranties provide specific legal rights; but, there may be other available rights, which vary from state to state, province to province, or country to country.

Revised July 6, 2001

Hill-Rom Company, Inc., 1069 State Route 46 E, Batesville, IN 47006-9167

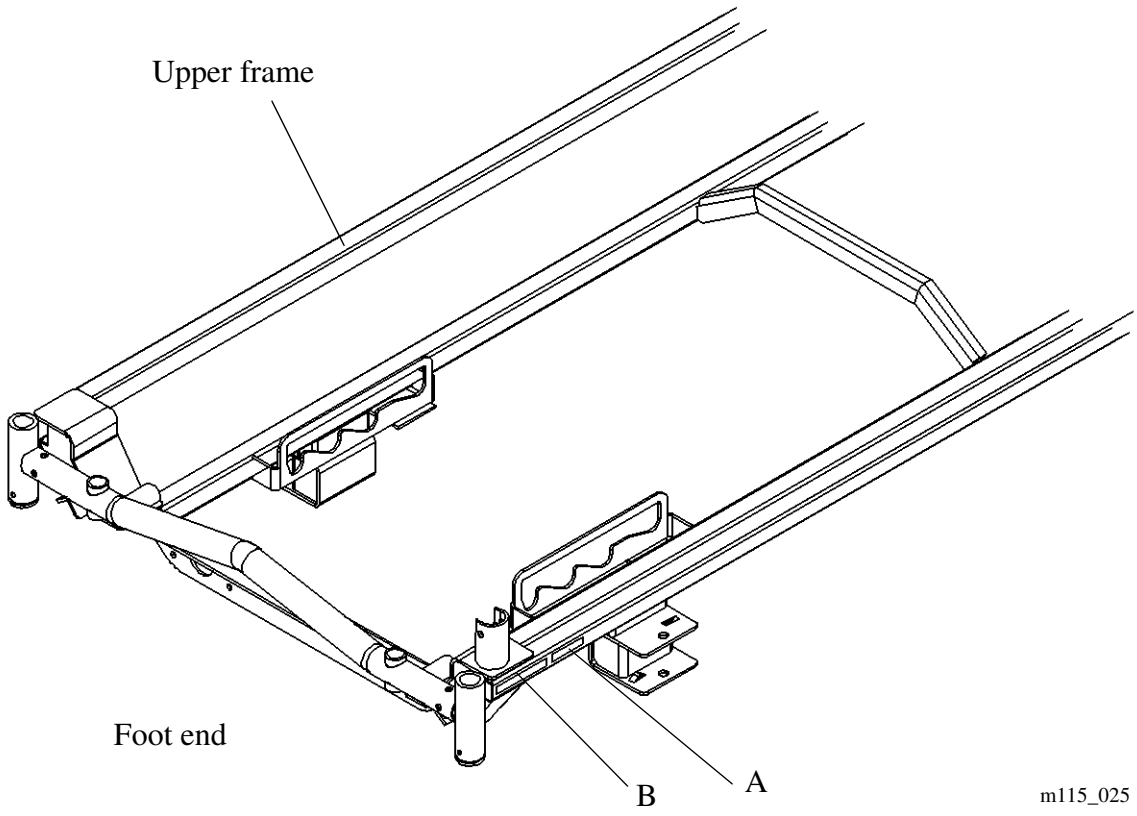
5

NOTES:

Service Parts Ordering

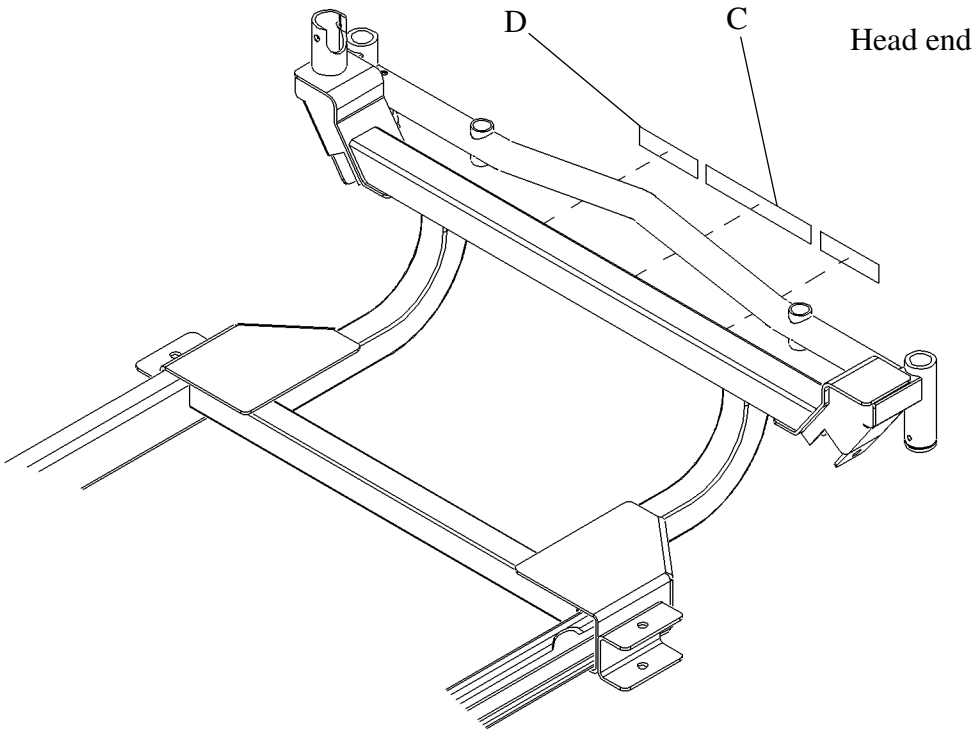
Using the parts lists in this manual, identify the part number(s) you require.You will find the product number on the model number label (B) and the serial number label (A) (see figure 5-1 on page 5-7). For the OB/GYN stretcher, you will find the product number on the model number label (C) and the serial number label (D) (see figure 5-2 on page 5-8).

Figure 5-1. Identification Label Location



5

Figure 5-2. OB/GYN Stretcher Identification Label Location



Call Hill-Rom Technical Support at (800) 445-3720 with the following information:

- Six-digit customer account number
- Purchase order number
- Product number
- Serial number
- Part number(s)

To promptly order parts, request part prices and availability, or follow up on a service order, use the following Hill-Rom fax number:

(812) 934-8472

Terms:

- Net 30 days
- F.O.B. Batesville, IN
- Prepaid shipping charges added to invoice
- All orders shipped UPS ground unless specified

Address all inquiries to:

ATTN TECHNICAL SUPPORT—PARTS
HILL-ROM, INC.
1069 STATE ROUTE 46 E
BATESVILLE IN 47006-9167

Address all return goods to:

ATTN SERVICE STORES
DISTRIBUTION CENTER DOOR D23
HILL-ROM, INC.
COUNTY ROAD 300E
BATESVILLE IN 47006-9167

NOTE:
To eliminate possible delays or incorrect billings, **do not** return any items without a Return Material Authorization (RMA) number. When a return is requested, an RMA packet is included with each order. This packet includes an RMA number, instructions, and a shipping label. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720.

Exchange Policy

The following are Hill-Rom's policies for in-warranty and out-of-warranty exchanges.

In-Warranty Exchanges

In some cases, Hill-Rom will request that parts/products be returned for inspection. When this occurs, you are expected to return parts/products within 30 days of receipt of the exchange part. If you fail to return the inoperative parts/products within the 30 day period, Hill-Rom will invoice your facility for the full selling price of the parts/products.

NOTE:
The preceding billing procedure pertains **only** to parts/products that Hill-Rom requests to be returned.

In some cases, the invoice accompanying the parts will show the full selling price (only for Hill-Rom's internal use). Do not confuse this price with your price.

Do not return any parts without an RMA number. When parts/products have been requested to be returned, Hill-Rom will include an RMA packet with the parts/products shipment. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720.

Out-of-Warranty Exchanges

You are expected to return the inoperative parts/products within 30 days of receipt of the exchange part. Hill-Rom will include an RMA packet with the parts/products shipment. If an RMA number is not available, obtain one by phoning Hill-Rom Technical Support at (800) 445-3720. Hill-Rom will invoice your facility for the full selling price of the parts/products. Upon return of the inoperative parts/products, Hill-Rom will issue a credit to your facility for **the difference between the exchange price and the full selling price of the parts/products**.

Recommended Spare Parts

For a recommended spare parts list to service five or more units, see table 5-1 on page 5-11.

Table 5-1. Recommended Spare Parts

Part Number	Quantity	Description
65144	1	Hydraulic cylinder—head
46150	1	Hydraulic cylinder—foot
46363	5	Zero transfer stop “A”
46378	5	Zero transfer stop “B”
37275	10	Roll pin
4610302	10	Ratchet rivet
SA8894	2	Wheel, 8"
SA1643	1	Head brake/steer pedal, complete
SA1644	1	Foot brake/steer pedal, complete
16042	2	Screw, sims
406761	2	Rocker link
4640501	2	Connecting rod
46191	1	Gas spring
46349	2	Pedal cover, pump/down
46115	2	Pedal insert, pump/down
46340	2	Trendelenburg pedal base, rh
46337	2	Trendelenburg pedal base, lh
46353	2	Reverse Trendelenburg pedal insert, rh
46341	2	Trendelenburg pedal insert, rh
46355	2	Reverse Trendelenburg pedal insert, lh
46354	2	Trendelenburg pedal insert, lh

PC-100/PC-200 Procedural Stretcher Base Assembly

Figure 5-3. PC-100/PC-200 Procedural Stretcher Base Assembly

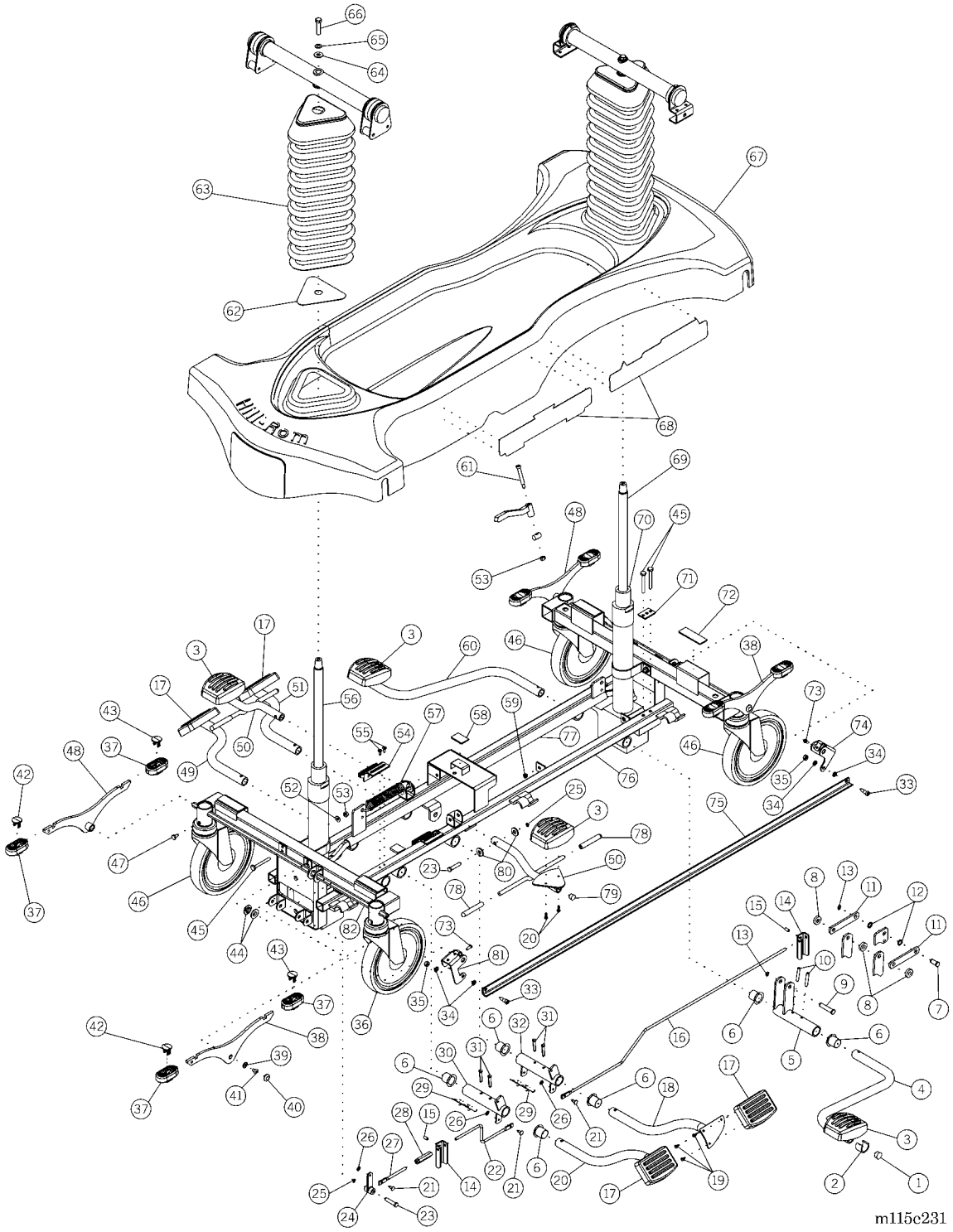


Table 5-2. PC-100/PC-200 Procedural Stretcher Base Assembly

Item Number	Part Number	Quantity	Description
1	3815602 (8000)	2	Hole plug, 0.718" white
2	48653 (8000)	2	Bumper
3	65084 (8000)	4	Pump/down pedal
4	4614648 (8000)	1	Pump pedal weldment, lh
5	46318pl (8000)	1	Pump connection tube welded assembly
6	46338 (8000)	6	Split bushing
7	4637502pl (8000)	1	Headed pin, 0.688"
8	46060 (8000)	3	Pump pedal linkage washer
9	4637501pl (8000)	1	Headed pin, 1.625"
10	64784 (8000)	2	Grooved pin, shear-proof
11	46323pl (8000)	2	Pump activation link
12	46061 (8000)	2	Pump linkage washer, plastic
13	36957 (8000)	2	Retaining ring
14	46343pl (8000)	2	Trendelenburg offset plunger
15	4648502 (8000)	2	Setscrew, cup point
16	46316 (8000)	1	Release rod, head
17	65231 (8000)	4	Pedal, Trendelenburg and Reverse Trendelenburg
18	4614348 (8000)	1	Trendelenburg pedal weldment, lh
19	42142 (8000)	20	Pan head screw
20	4645148 (8000)	1	Reverse Trendelenburg pedal weldment, lh
21	48650 (8000)	3	Grooved pin
22	46317 (8000)	1	Release rod, foot
23	4645404 (8000)	3	Headed pin, 1.313"
24	46053 (8000)	1	Reverse Trendelenburg rod support guide
25	43059 (8000)	3	Retaining ring
26	17291 (8000)	3	Push nut
27	46430 (8000)	1	Wire form extension
28	46320pl (8000)	1	Turnbuckle

Item Number	Part Number	Quantity	Description
29	62050 (8000)	2	Rue ring
30	46094pl (8000)	1	Reverse Trendelenburg connection tube weldment
31	65024 (8000)	4	Clevis pin
32	46148pl (8000)	1	Trendelenburg connection tube weldment
33	9025806 (8000)	2	Screw, hex socket head shoulder
34	65142 (8000)	4	Plastic washer (brake/steer)
35	9023404 (8000)	2	Hex nylock nut
36	9022926 (8000)	1	Total lock caster (red)
37	49174 (8000)	8	Pad, brake/steer pedal
38	6514601 (8000)	1	Brake/steer pedal weldment
39	65298 (8000)	4	Cap plug retainer, brake/steer link
40	65297 (8000)	4	Cap plug, brake/steer link
41	4388002 (8000)	4	Screw, lock head
42	491420160 (8000)	4	Button, brake/steer pedal, orange
43	491420258 (8000)	4	Button, brake/steer pedal, green
44	4630 (8000)	4	Bushing
45	9001836 (8000)	12	Screw, hex head cap
46	9022927 (8000)	3	Corner steer caster (green)
47	46098 (8000)	4	Caster screw
48	6514602 (8000)	2	Brake/steer pedal weldment, rh
49	4645248 (8000)	1	Reverse Trendelenburg pedal weldment
50	4614248 (8000)	2	Center release pedal weldment
51	4614448 (8000)	1	Trendelenburg pedal weldment, rh
52	1012 (8000)	4	Washer
53	4435 (8000)	14	Locknut
54	46088pl (8000)	2	Trendelenburg pedal spring bracket
55	43878 (8000)	4	Screw, Torx®[a] button head
56	46150 (8000)	1	Hydraulic cylinder—foot
57	46480 (8000)	1	Pump return spring

a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
58	4640102 (8000)	1	Velcro®[a] base, 1.5" x 1"
59	46491 (8000)	3	Split bushing
60	46145 (8000)	1	Pump pedal weldment, rh
61	9025828 (8000)	2	Screw, hex socket head shoulder
62	65513 (8000)	2	Bellows attachment plate
63	65105 (8000)	2	Bellows
64	4540 (8000)	2	Washer
65	41459 (8000)	2	Lock washer
66	9001724H (8000)	2	Screw
67	6510701 (8000)	1	Base shroud, hydraulic
68	65312 (8000)	2	Base label kit
69	65144 (8000)	1	Hydraulic cylinder—head
70	6504702 (8000)	2	Hydraulic cylinder spacer
71	4609201pl (8000)	4	Washer, hydraulic cylinder bracket
72	4640101 (8000)	4	Velcro® base, 3" x 1"
73	16042 (8000)	2	Screw, sims
74	65109 (8000)	1	Brake/steer link, head
75	65241 (8000)	1	Brake steer angle
76	4609501 (8000)	1	Base weldment
77	46057pl (8000)	1	Pump linkage weldment assembly
78	39723 (8000)	4	Sleeve - Trendelenburg handle
79	3815601 (8000)	2	Hole plug, 0.578" white
80	46487 (8000)	4	Washer, plastic
81	65110 (8000)	1	Brake/steer link, foot
82	65106 (8000)	2	Hex rod

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

PC-300–PC-550 Procedural/Electric/Trauma/OB/GYN Stretcher Base Assembly

Figure 5-4. PC-300–PC-550 Procedural/Electric/Trauma/OB/GYN Stretcher Base Assembly

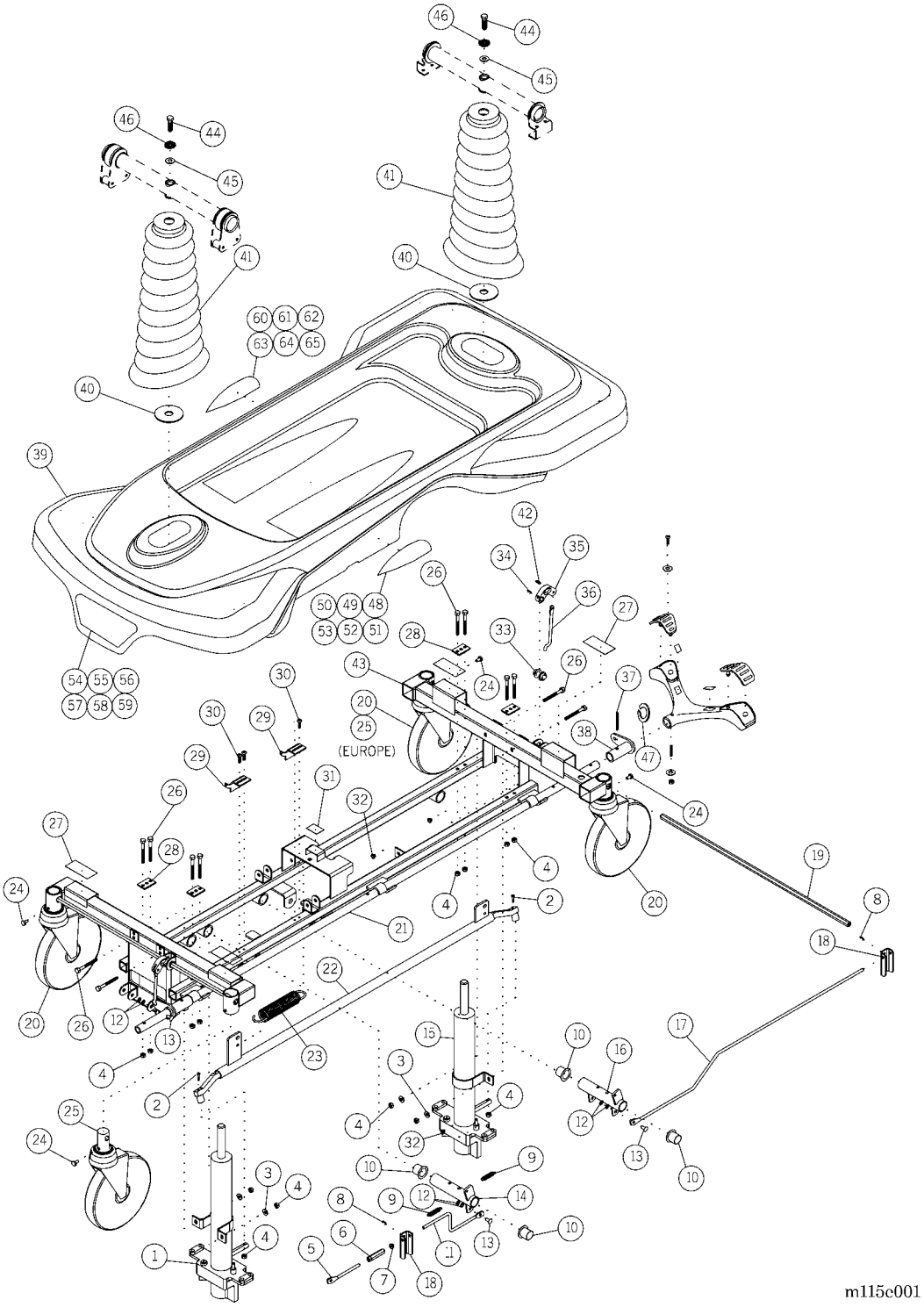


Table 5-3. PC-300–PC-550 Procedural/Electric/Trauma/OB/GYN Stretcher Base Assembly

Item Number	Part Number	Quantity	Description
1	46150 (8000)	1	Hydraulic cylinder—foot
2	9025828 (8000)	2	Screw, hex socket head shoulder
3	1012 (8000)	4	Washer
4	4435 (8000)	14	Locknut
5	46430 (8000)	1	Wire form extension
6	46320pl (8000)	1	Turnbuckle
7	46486 (8000)	1	Nut, hex
8	4648502 (8000)	2	Set screw, cup point
9	46481 (8000)	2	Trendelenburg return spring
10	46338 (8000)	4	Split bushing
11	46317 (8000)	1	Release rod foot
12	17291 (8000)	6	Push nut
13	48650 (8000)	3	Grooved pin
14	46094pl (8000)	1	Reverse Trendelenburg connection tube welded assembly
15	65144 (8000)	1	Hydraulic cylinder—head
16	46148pl (8000)	1	Trendelenburg connection tube welded assembly
17	46316 (8000)	1	Release rod head
18	46343pl (8000)	2	Trendelenburg offset plunger
19	46360pl (8000)	2	Hex rod
20	9022931 (8000) or SA8894 (8000)	3 3	Brake caster (conductive) Wheel, 8"
21	46100pl (8000)	1	Brake/steer shaft
22	46057pl (8000)	1	Pump linkage weldment assembly
23	46480 (8000)	1	Pump return spring
24	46098 (8000)	4	Caster screw
25	9022930 (8000)	1	Brake/steer caster
26	9001836 (8000)	12	Screw, hex head cap
27	4640101 (8000)	4	Velcro®[a] base, 3" x 1"

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Item Number	Part Number	Quantity	Description
28	4609201pl (8000)	4	Washer, hydraulic cylinder bracket
29	46088pl (8000)	2	Trendelenburg pedal spring bracket
30	43878 (8000)	4	Screw, Torx®[a] button head
31	4640102 (8000)	1	Velcro® base, 1.5" x 1"
32	46491 (8000)	3	Split bushing
33	46416 (8000)	4	Hex bushing
34	16042 (8000)	2	Screw, sims
35	406761 (8000)	2	Rocker arm
36	46405 (8000)	2	Connecting rod, 5"
37	12434 (8000)	2	Roll pin
38	46351pl (8000)	2	Brake activation assembly
39	46311 (8000)	1	Base cover
40	46122pl (8000)	2	Bellows attachment plate
41	46314 (8000)	2	Bellows
42	27509 (8000)	2	Roll pin
43	4605148 (8000)	1	Base weldment
44	9001724H (8000)	2	Screw
45	4540 (8000)	2	Washer
46	41459 (8000)	2	Lockwasher
47	11873 (8000)	2	Roll pin retainer
48	4614101 (8000)	1	Label, product, lh (blue)
49	4614102 (8000)	1	Label, product, lh (purple)
50	4614103 (8000)	1	Label, product, lh (teal)
51	4614104 (8000)	1	Label, product, lh (green)
52	4614105 (8000)	1	Label, product, lh (red)
53	4614106 (8000)	1	Label, product, lh (grey)
54	4613901 (8000)	2	Label, product, head/foot (blue)
55	4613902 (8000)	2	Label, product, head/foot (purple)
56	4613903 (8000)	2	Label, product, head/foot (teal)

a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
57	4613904 (8000)	2	Label, product, head/foot (green)
58	4613905 (8000)	2	Label, product, head/foot (red)
59	4613906 (8000)	2	Label, product, head/foot (grey)
60	4614001 (8000)	1	Label, product, rh (blue)
61	4614002 (8000)	1	Label, product, rh (purple)
62	4614003 (8000)	1	Label, product, rh (teal)
63	4614004 (8000)	1	Label, product, rh (green)
64	4614005 (8000)	1	Label, product, rh (red)
65	4614006 (8000)	1	Label, product, rh (grey)

Surgical Stretcher Base Assembly

Figure 5-5. Surgical Stretcher Base Assembly

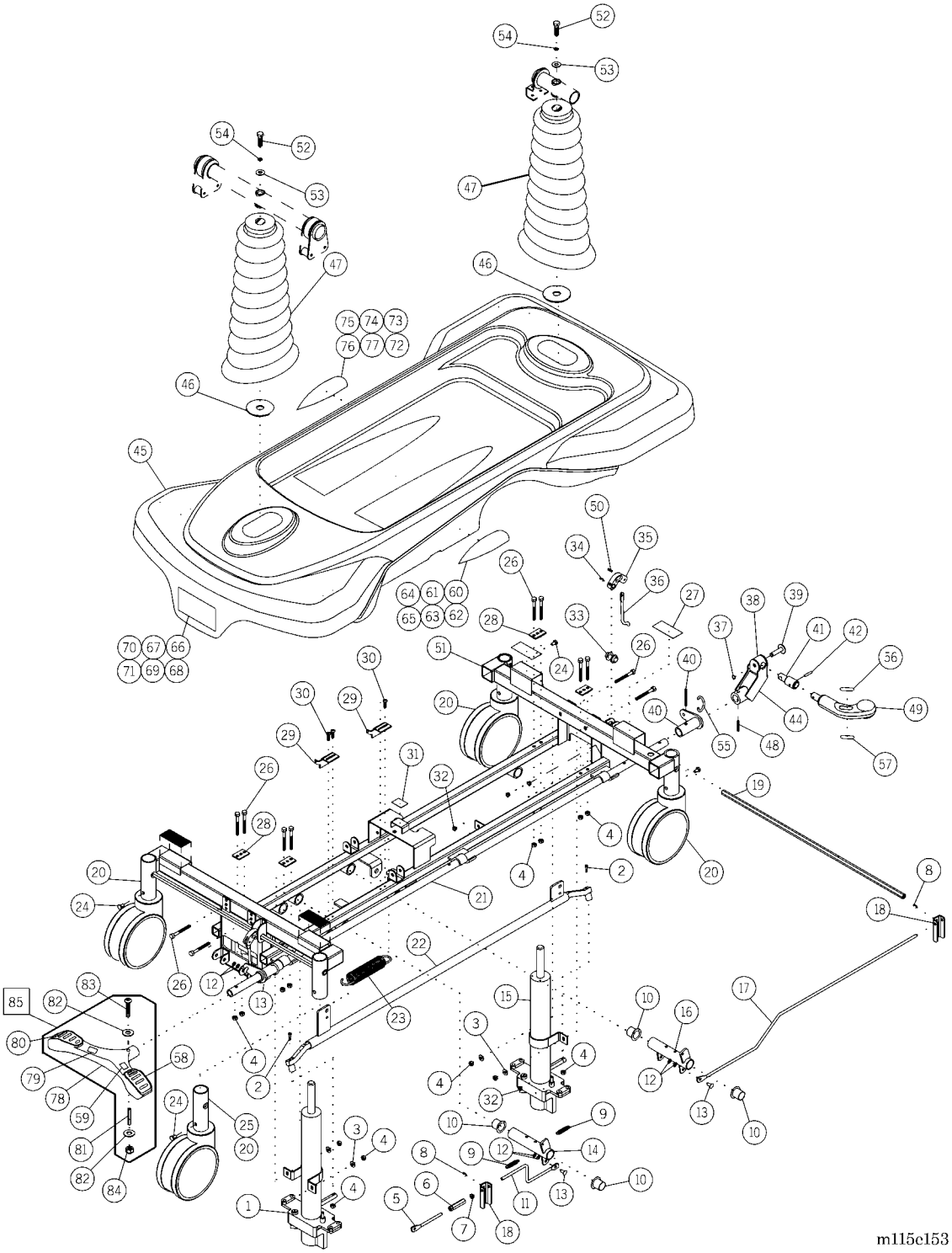


Table 5-4. Surgical Stretcher Base Assembly

Item Number	Part Number	Quantity	Description
1	49615 (8000)	1	Hydraulic cylinder, foot
2	9025828 (8000)	2	Screw, hex socket head shoulder
3	1012 (8000)	4	Washer
4	4435 (8000)	14	Locknut
5	46430 (8000)	1	Wire form extension
6	46320pl (8000)	1	Turnbuckle
7	46486 (8000)	1	Nut, hex
8	4648502 (8000)	2	Setscrew, cup point
9	46481 (8000)	2	Trendelenburg return spring
10	46338 (8000)	4	Split bushing
11	46317 (8000)	1	Release rod foot
12	17291 (8000)	6	Push nut
13	48650 (8000)	3	Grooved pin
14	46094pl (8000)	1	Reverse Trendelenburg connection tube welded assembly
15	49614 (8000)	1	Hydraulic cylinder, head
16	46148pl (8000)	1	Trendelenburg connection tube welded assembly
17	46316 (8000)	1	Release rod head
18	46343pl (8000)	2	Trendelenburg offset plunger
19	46360pl (8000)	2	Hex rod
20	9022925 (8000) or 9022929 (8000)	3 3	Brake caster (usage 4 with Steering Plus™ module - 6088101) Brake caster (conductive)
21	4610001 (8000)	1	Brake/steer shaft
22	46057pl (8000)	1	Pump linkage weldment assembly
23	46480 (8000)	1	Pump return spring
24	48973 (8000)	4	Caster screw, metric
25	9022924 (8000) or 9022928 (8000)	1 1	Brake/steer caster (with corner steer module - 6088102) Steer caster (conductive)
26	9001836 (8000)	12	Screw, hex head cap
27	4640101 (8000)	4	Velcro®[a] base, 3" x 1"

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

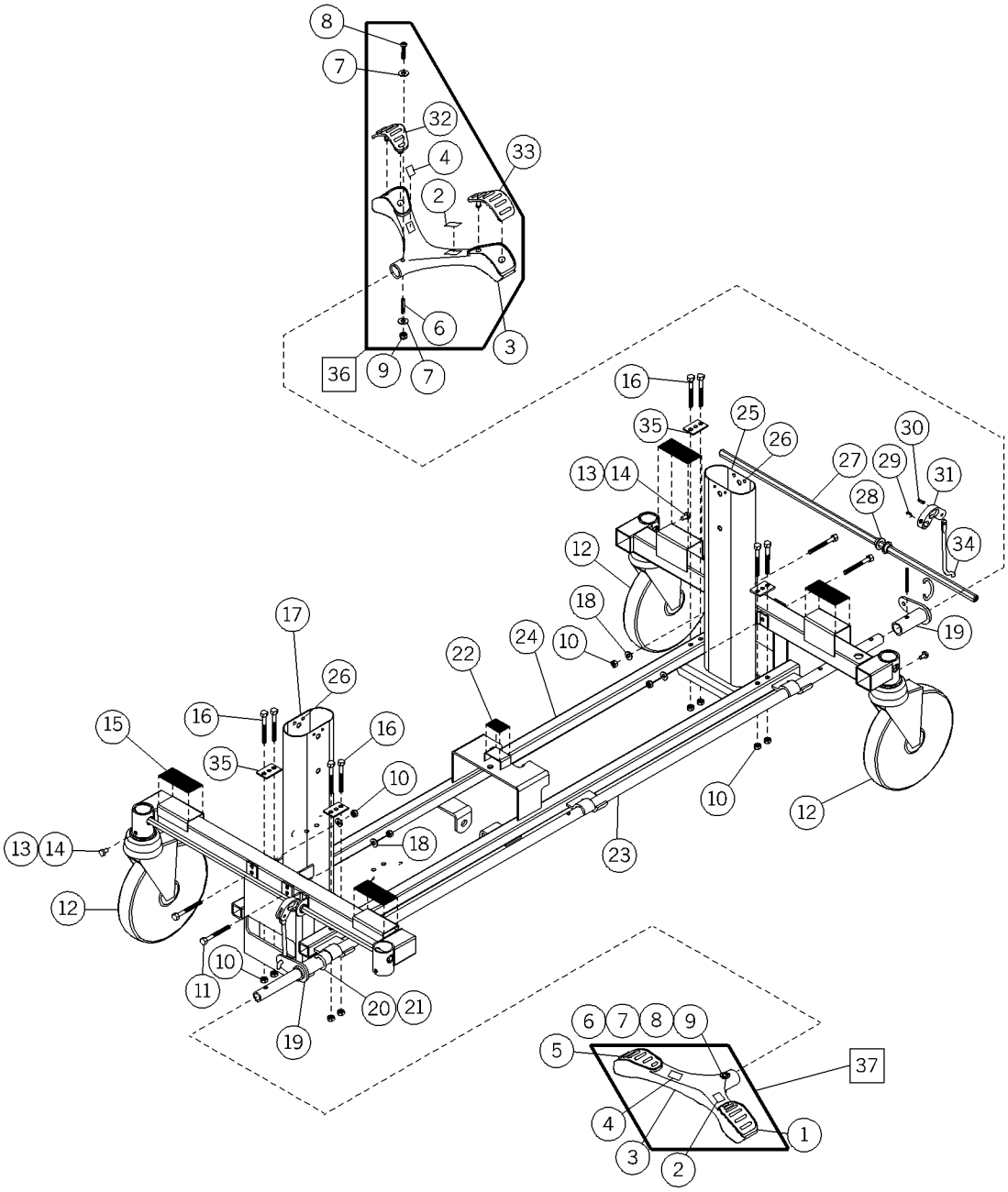
Item Number	Part Number	Quantity	Description
28	4609201pl (8000)	4	Washer, hydraulic cylinder bracket
29	46088pl (8000)	2	Trendelenburg pedal spring bracket
30	43878 (8000)	4	Screw, Torx®[a] button head
31	4640102 (8000)	1	Velcro® base, 1.5" x 1"
32	46491 (8000)	3	Split bushing
33	46416 (8000)	4	Hex bushing
34	16042 (8000)	2	Screw, sims
35	406761 (8000)	2	Rocker arm
36	4640501 (8000)	2	Connecting rod
37	36957 (8000)	3	Retaining ring
38	46041 (8000)	1	Lower pivot block
39	60792 (8000)	1	Headed pin
40	12434 (8000)	2	Roll pin
41	61755 (8000)	1	Pedal adapter
42	128 (8000)	1	Roll pin
43	46351pl (8000)	2	Brake activation assembly
44	49096 (8000)	1	Brake pedal weldment
45	4631102 (8000)	1	Base shroud
46	46122pl (8000)	2	Bellows attachment plate
47	46314 (8000)	2	Bellows
48	39839 (8000)	2	Roll pin
49	4398401 (8000)	1	Brake/steer pedal
50	27509 (8000)	2	Roll pin
51	4605102 (8000)	1	Base weldment
52	9001724H (8000)	2	Screw
53	4540 (8000)	2	Washer
54	41459 (8000)	2	Lockwasher
55	11873 (8000)	2	Roll pin retainer
56	61765 (8000)	1	Label, brake

a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
57	61764 (8000)	1	Label, steer
58	4634802 (8000)	1	Brake/steer pedal insert, foot, gray
59	4647601 (8000)	1	Label, brake pedal
60	4614101 (8000)	1	Label, product, lh (blue)
61	4614102 (8000)	1	Label, product, lh (purple)
62	4614103 (8000)	1	Label, product, lh (teal)
63	4614104 (8000)	1	Label, product, lh (green)
64	4614105 (8000)	1	Label, product, lh (red)
65	4614106 (8000)	1	Label, product, lh (grey)
66	4613901 (8000)	2	Label, product, head/foot (blue)
67	4613902 (8000)	2	Label, product, head/foot (purple)
68	4613903 (8000)	2	Label, product, head/foot (teal)
69	4613904 (8000)	2	Label, product, head/foot (green)
70	4613905 (8000)	2	Label, product, head/foot (red)
71	4613906 (8000)	2	Label, product, head/foot (grey)
72	4614001 (8000)	1	Label, product, rh (blue)
73	4614002 (8000)	1	Label, product, rh (purple)
74	4614003 (8000)	1	Label, product, rh (teal)
75	4614004 (8000)	1	Label, product, rh (green)
76	4614005 (8000)	1	Label, product, rh (red)
77	4614006 (8000)	1	Label, product, rh (grey)
78	46346 (8000)	1	Brake/steer pedal double
79	4647602 (8000)	1	Label, steer pedal
80	4634502 (8000)	1	Brake/steer pedal insert, foot, green
81	39839 (8000)	1	Roll pin
82	864 (8000)	2	Washer
83	22297 (8000)	1	Screw
84	11247 (8000)	1	Nut
85	SA1644 (8000)	1	Foot brake/steer pedal complete

Fixed Height Stretcher Base Assembly

Figure 5-6. Fixed Height Stretcher Base Assembly



m115b093

Table 5-5. Fixed Height Stretcher Base Assembly

Item Number	Part Number	Quantity	Description
1	4634802 (8000)	1	Brake/steer pedal insert, foot, gray
2	4647601 (8000)	2	Label, brake pedal
3	46346 (8000)	2	Brake/steer pedal double
4	4647602 (8000)	2	Label, steer pedal
5	4634502 (8000)	1	Brake/steer pedal insert, foot, green
6	39839 (8000)	2	Roll pin
7	864 (8000)	4	Washer
8	22297 (8000)	2	Screw
9	11247 (8000)	2	Nut
10	4435 (8000)	12	Locknut
11	9001836 (8000)	4	Screw, hex head cap
12	9022919 (8000)	3	Brake caster
13	46098 (8000)	4	Caster screw
14	SA3618 (8000)	As required	Loctite®[a] (blue #242)
15	4640101 (8000)	4	Velcro®[b] base, 3" x 1"
16	9001828 (8000)	8	Screw, hex head cap
17	6021250 (8000)	1	Column base weldment, foot
18	1012 (8000)	4	Washer
19	46351pl (8000)	2	Brake activation assembly
20	12434 (8000)	2	Roll pin
21	11873 (8000)	2	Roll pin retainer
22	4640102 (8000)	1	Velcro® base, 1.5" x 1"
23	46100pl (8000)	1	Brake/steer shaft
24	460510148 (8000)	1	Base weldment
25	6021150 (8000)	1	Column base weldment, head
26	34872 (8000)	8	Slide button
27	46360pl (8000)	2	Hex rod
28	46416 (8000)	4	Hex bushing
29	16042 (8000)	2	Screw, sims

a. Loctite® is a registered trademark of Loctite Corporation.
b. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Item Number	Part Number	Quantity	Description
30	27509 (8000)	2	Roll pin
31	406761 (8000)	2	Rocker arm
32	4634801 (8000)	1	Brake/steer pedal insert, head, green
33	4634501 (8000)	1	Brake/steer pedal insert, head, gray
34	46405 (8000)	2	Connecting rod, 5"
35	4609201pl (8000)	4	Washer, hydraulic cylinder bracket
36	SA1643 (8000)	1	Head brake/steer pedal complete
37	SA1644 (8000)	1	Foot brake/steer pedal complete

NOTES:

Fixed Height Stretcher Upper Frame Column Weldment and Base Shroud

Figure 5-7. Fixed Height Stretcher Upper Frame Column Weldment and Base Shroud

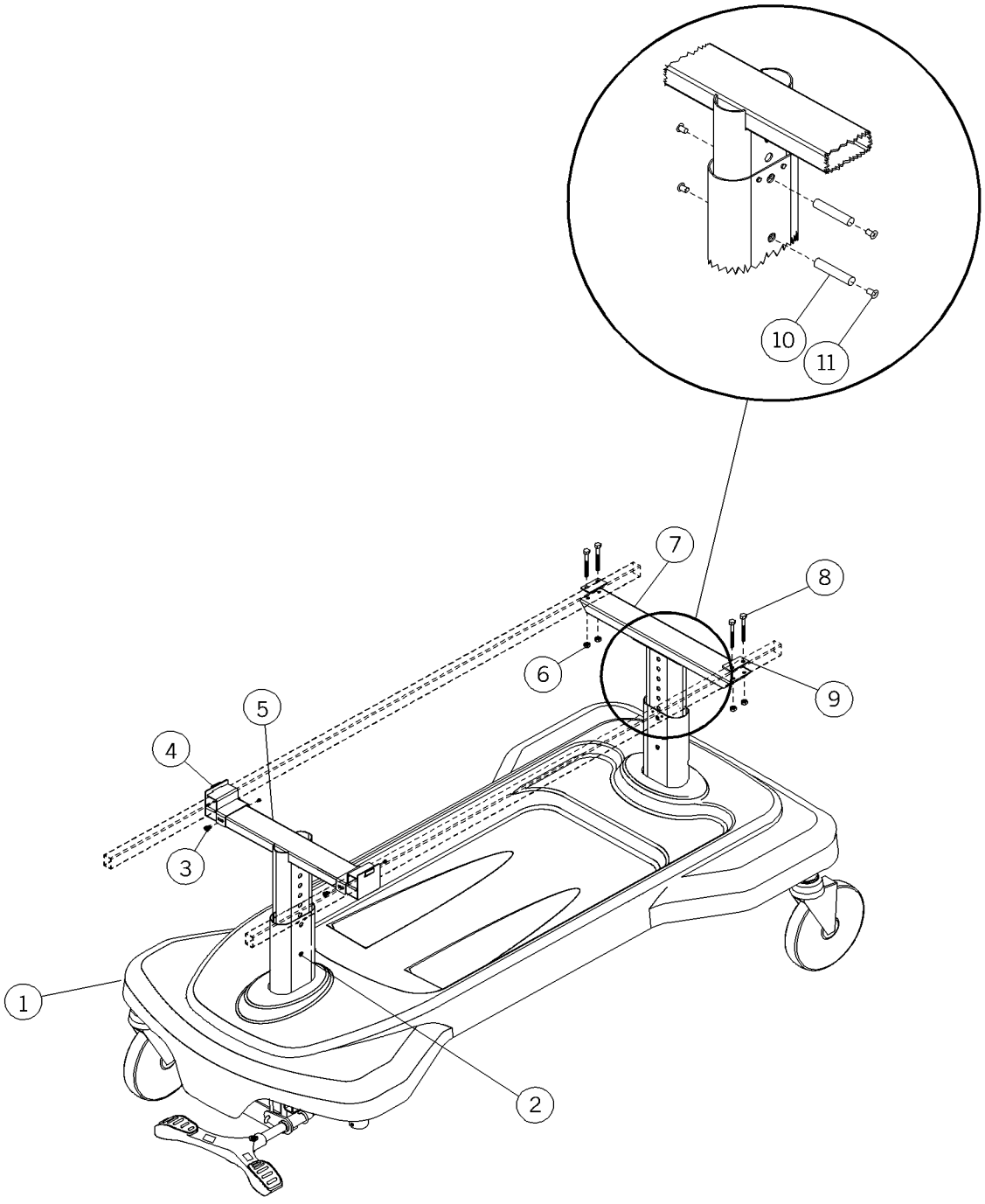


Table 5-6. Fixed Height Stretcher Upper Frame Column Weldment and Base Shroud

Item Number	Part Number	Quantity	Description
1	4631101 (8000)	1	Base shroud, fixed height
2	34872 (8000)	4	Slide button
3	43878 (8000)	4	Screw, Torx®[a] button head
4	6020050 (8000)	2	Support tube brace, foot
5	6021450 (8000)	1	Upper frame column weldment, foot
6	4435 (8000)	4	Locknut
7	6021350 (8000)	1	Upper frame column weldment, head
8	9001828 (8000)	4	Screw, hex head cap
9	6019848 (8000)	2	Head support bolt spacer
10	60479pl (8000)	4	Pin, upright adjustment
11	60480 (8000)	8	Screw

a. Torx® is a registered trademark of Textron, Inc.

Pedals (Stretchers With Side Pedals)

Figure 5-8. Pedals (Stretchers With Side Pedals)

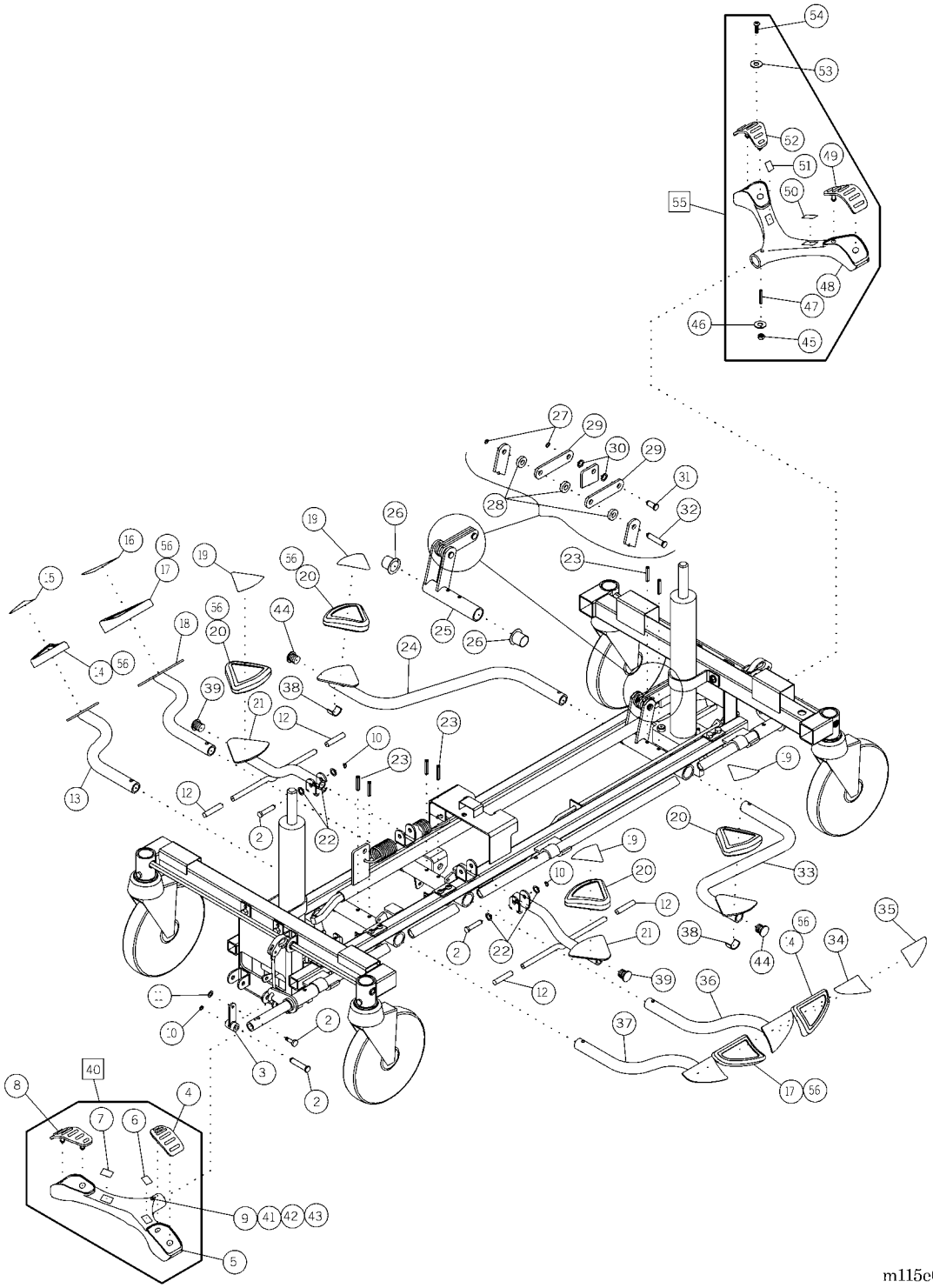


Table 5-7. Pedals (Stretchers With Side Pedals)

Item Number	Part Number	Quantity	Description
1	48650 (8000)	1	Grooved pin
2	4645404 (8000)	3	Headed pin, 1.313"
3	46053 (8000)	1	Reverse Trendelenburg rod support guide
4	4634802 (8000)	1	Brake/steer pedal insert, foot, gray
5	46346 (8000)	1	Brake/steer pedal double
6	4647601 (8000)	1	Label, brake pedal
7	4647602 (8000)	1	Label, steer pedal
8	4634502 (8000)	1	Brake/steer pedal insert, foot, green
9	39839 (8000)	1	Roll pin
10	43059 (8000)	3	Retaining ring
11	17291 (8000)	1	Push nut
12	3972301 (8000)	4	Pedal sleeve
13	4645248 (8000)	1	Reverse Trendelenburg pedal welded assembly
14	46340 (8000)	2	Release pedal, rh
15	46353 (8000)	1	Reverse Trendelenburg pedal insert, rh
16	46341 (8000)	1	Trendelenburg pedal insert, rh
17	46337 (8000)	2	Release pedal, lh
18	4614448 (8000)	1	Trendelenburg pedal welded assembly, rh
19	46115 (8000)	4	Up/down pedal insert
20	46349 (8000)	4	Up/down pedal
21	4614248 (8000)	2	Center release pedal assembly
22	46487 (8000)	4	Washer, plastic
23	44380 (8000)	6	Groove pin
24	4614548 (8000)	1	Pump pedal welded assembly, rh
25	46318pl (8000)	1	Pump connection tube welded assembly
26	46338 (8000)	2	Split bushing
27	36957 (8000)	2	Retaining ring
28	46060 (8000)	3	Pump pedal linkage washer
29	46323pl (8000)	2	Pump activation link
30	46061 (8000)	2	Pump linkage washer, plastic

Item Number	Part Number	Quantity	Description
31	4637502pl (8000)	1	Headed pin, 0.688"
32	4637501pl (8000)	1	Headed pin, 1.625"
33	4614648 (8000)	1	Pump down pedal welded assembly, lh
34	46355 (8000)	1	Reverse Trendelenburg pedal insert, lh
35	46354 (8000)	1	Trendelenburg pedal insert, lh
36	4614348 (8000)	1	Trendelenburg pedal welded assembly, lh
37	4645148 (8000)	1	Reverse Trendelenburg pedal welded assembly, lh
38	48653 (8000)	2	Bumper
39	3815601 (8000)	2	Hole plug, 0.578" white
40	SA1644 (8000)	1	Foot brake/steer pedal complete
41	22297 (8000)	1	Screw
42	864 (8000)	2	Washer
43	11247 (8000)	1	Nut
44	3815602 (8000)	2	Hole plug, 0.718" white
45	11247 (8000)	1	Nut
46	864 (8000)	1	Washer
47	39839 (8000)	2	Roll pin
48	46346 (8000)	1	Brake/steer pedal double
49	4634501 (8000)	1	Brake/steer pedal insert, head, gray
50	4647601 (8000)	1	Label, brake pedal
51	4647602 (8000)	1	Label, steer pedal
52	4634801 (8000)	1	Brake/steer pedal insert, head, green
53	864 (8000)	1	Washer
54	22297 (8000)	1	Screw
55	SA1643 (8000)	1	Head brake/steer pedal complete
56	37997 (8000)	As required	Adhesive

NOTES:

Pedals (Stretchers With Side and Foot-End Pedals)

Figure 5-9. Pedals (Stretchers With Side and Foot-End Pedals)

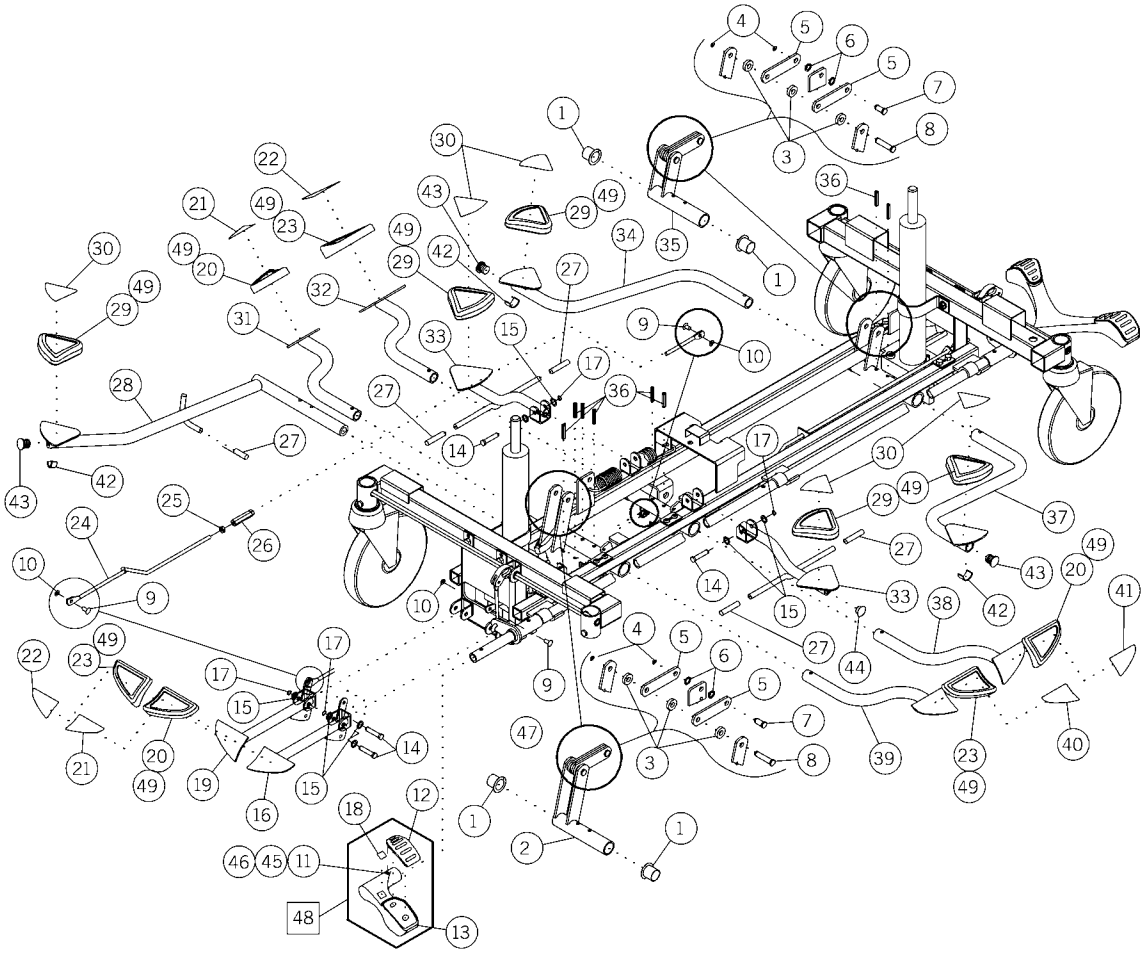


Table 5-8. Pedals (Stretchers With Side and Foot-End Pedals)

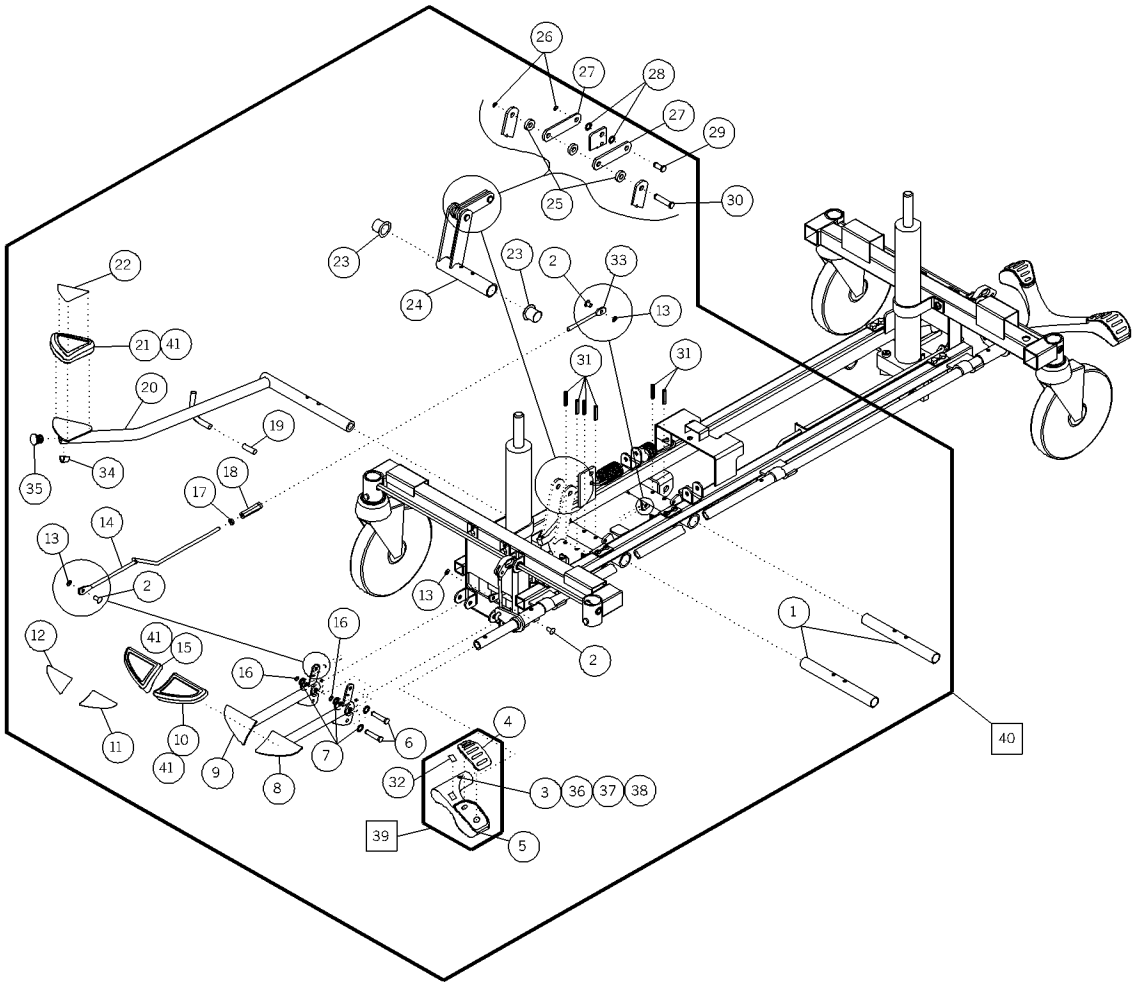
Item Number	Part Number	Quantity	Description
1	46338 (8000)	4	Split bushing
2	46319pl (8000)	1	Pump connection welded assembly
3	46060 (8000)	6	Pump pedal linkage washer
4	36957 (8000)	4	Retaining ring
5	46323pl (8000)	4	Pump activation link
6	46061 (8000)	4	Pump linkage washer (plastic)
7	4637502pl (8000)	2	Headed pin, 0.688"
8	4637501pl (8000)	2	Headed pin, 1.625"
9	48650 (8000)	2	Grooved pin
10	17291 (8000)	4	Push nut
11	39839 (8000)	1	Roll pin
12	4634802 (8000)	1	Brake/steer pedal insert, foot, gray
13	46347 (8000)	1	Brake/steer pedal half
14	4645404 (8000)	4	Headed pin, 1.313"
15	46487 (8000)	8	Washer, plastic
16	4642348 (8000)	1	Reverse Trendelenburg pedal welded assembly
17	43059 (8000)	4	Retaining ring
18	4647601 (8000)	1	Label, brake pedal
19	4641948 (8000)	1	Trendelenburg pedal welded assembly
20	46340 (8000)	3	Release pedal, rh
21	46353 (8000)	2	Reverse Trendelenburg pedal insert, rh
22	46341 (8000)	2	Trendelenburg pedal insert, rh
23	46337 (8000)	3	Release pedal, lh
24	46457 (8000)	1	Foot end Trendelenburg rod
25	46486 (8000)	1	Nut, hex
26	46320pl (8000)	1	Turnbuckle
27	3972301 (8000)	4	Pedal sleeve
28	4632548 (8000)	1	Pump pedal welded assembly, foot
29	46349 (8000)	5	Up/down pedal

Item Number	Part Number	Quantity	Description
30	46115 (8000)	5	Up/down pedal insert
31	4645248 (8000)	1	Reverse Trendelenburg pedal welded assembly
32	4614448 (8000)	1	Trendelenburg pedal welded assembly, rh
33	4614248 (8000)	2	Center release pedal assembly
34	4614548 (8000)	1	Pump pedal welded assembly, rh
35	46318pl (8000)	1	Pump connection tube welded assembly
36	44380 (8000)	6	Groove pin
37	4614648 (8000)	1	Pump down pedal welded assembly, lh
38	4614348 (8000)	1	Trendelenburg pedal welded assembly, lh
39	4645148 (8000)	1	Reverse Trendelenburg pedal welded assembly, lh
40	46355 (8000)	1	Reverse Trendelenburg pedal insert, lh
41	46354 (8000)	1	Trendelenburg pedal insert, lh
42	48653 (8000)	3	Bumper
43	3815602 (8000)	2	Hole plug, 0.718" white
44	3815601 (8000)	2	Hole plug, 0.578" white
45	22297 (8000)	1	Screw
46	864 (8000)	2	Washer
47	11247 (8000)	1	Nut
48	SA1645 (8000)	1	Half pedal complete
49	37997 (8000)	As required	Adhesive

NOTES:

Pedals (Stretchers With Foot-End Pedals)

Figure 5-10. Pedals (Stretchers With Foot-End Pedals)



m115c004

Table 5-9. Pedals (Stretchers With Foot-End Pedals)

Item Number	Part Number	Quantity	Description
1	46129pl (8000)	2	Trendelenburg pivot tube
2	48650 (8000)	2	Grooved pin
3	39839 (8000)	1	Roll pin
4	4634802 (8000)	1	Brake/steer pedal insert, foot, gray
5	46347 (8000)	1	Brake/steer pedal half
6	4645404 (8000)	2	Headed pin, 1.313"
7	46487 (8000)	4	Washer, plastic
8	4642348 (8000)	1	Reverse Trendelenburg pedal welded assembly
9	4641948 (8000)	1	Trendelenburg pedal welded assembly
10	46340 (8000)	1	Release pedal, rh
11	46353 (8000)	1	Reverse Trendelenburg pedal insert, rh
12	46341 (8000)	1	Trendelenburg pedal insert, rh
13	17291 (8000)	4	Push nut
14	46457 (8000)	1	Foot end Trendelenburg rod
15	46337 (8000)	1	Release pedal, lh
16	43059 (8000)	2	Retaining ring
17	46486 (8000)	1	Nut, hex
18	46320pl (8000)	1	Turnbuckle
19	48654 (8000)	1	Foot pump pedal stop cap
20	4632548 (8000)	1	Pump pedal welded assembly, foot
21	46349 (8000)	1	Up/down pedal
22	46115 (8000)	1	Up/down pedal insert
23	46338 (8000)	2	Split bushing
24	46319pl (8000)	1	Pump connection welded assembly
25	46060 (8000)	3	Pump pedal linkage washer
26	36957 (8000)	2	Retaining ring
27	46323pl (8000)	2	Pump activation link
28	46061 (8000)	2	Pump linkage washer (plastic)
29	4637502pl (8000)	1	Headed pin, 0.688"

Item Number	Part Number	Quantity	Description
30	4637501pl (8000)	1	Headed pin, 1.625"
31	44380 (8000)	6	Groove pin
32	4647601 (8000)	1	Label, brake pedal
33	46430 (8000)	1	Wire form extension
34	48653 (8000)	1	Bumper
35	3815601 (8000)	1	Hole plug, 0.578" white
36	22297 (8000)	1	Screw
37	864 (8000)	2	Washer
38	11247 (8000)	1	Nut
39	SA1645 (8000)	1	Half pedal complete
40	4613302S (8000)	1	Foot hilow controls
41	37997 (8000)	As required	Adhesive

NOTES:

Steering Plus™ Steering System (Old Style)

Figure 5-11. Steering Plus™ Steering System (Old Style)

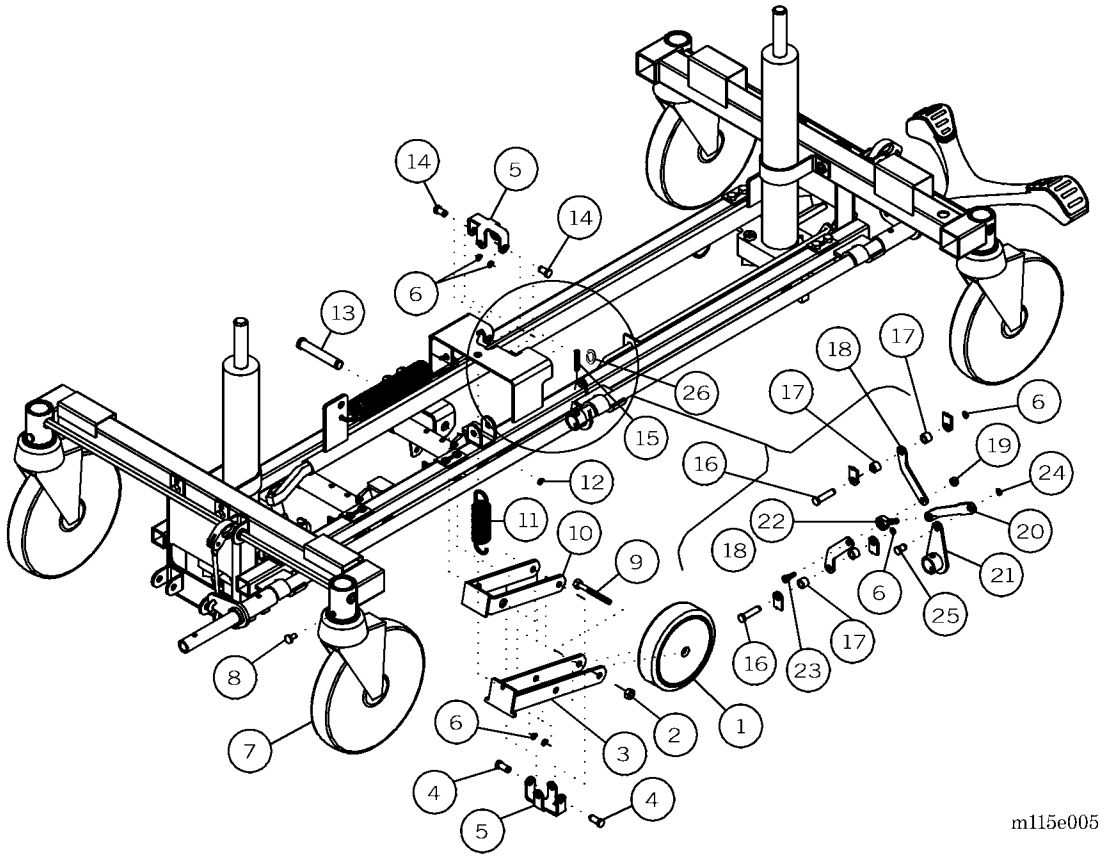


Table 5-10. Steering Plus™ Steering System (Old Style)

Item Number	Part Number	Quantity	Description
1	SA3712 (8000)	1	Wheel, tente, 5"
2	831 (8000)	1	Locknut
3	46152pl (8000)	1	Mounting bracket assembly, fifth wheel
4			4645401 headed pin is no longer available. Order 98V235 steering module field upgrade kit (see "Steering Plus™ Steering System Field Upgrade—98V235" on page 7-58).
5			46085 pivot link is no longer available. Order 98V235 steering module field upgrade kit (see "Steering Plus™ Steering System Field Upgrade—98V235" on page 7-58).
6	43059 (8000)	6	Retaining ring
7	9022919 (8000)	1	Brake caster
8	46098 (8000)	4	Caster screw
9	9001636 (8000)	1	Screw
10	46104pl (8000)	1	Wheel link welded assembly
11	46357 (8000)	1	Spring, fifth wheel
12	37652 (8000)	1	Retaining ring
13	46453 (8000)	1	Headed pin
14			4645402 headed pin is no longer available. Order 98V235 steering module field upgrade kit (see "Steering Plus™ Steering System Field Upgrade—98V235" on page 7-58).
15	12434 (8000)	1	Roll pin
16			4645403 headed pin is no longer available. Order 98V235 steering module field upgrade kit (see "Steering Plus™ Steering System Field Upgrade—98V235" on page 7-58).

Item Number	Part Number	Quantity	Description
17			46456 spacer is no longer available. Order 98V235 steering module field upgrade kit (see “Steering Plus™ Steering System Field Upgrade—98V235” on page 7-58).
18			46158 pivot arm is no longer available. Order 98V235 steering module field upgrade kit (see “Steering Plus™ Steering System Field Upgrade—98V235” on page 7-58).
19	755 (8000)	1	Locknut
20			46159 pivot bracket is no longer available. Order 98V235 steering module field upgrade kit (see “Steering Plus™ Steering System Field Upgrade—98V235” on page 7-58).
21	46055 (8000)	1	Lever arm assembly, fifth wheel
22	36291 (8000)	1	Rod end
23	9033811 (8000)	1	Shoulder screw
24	4435 (8000)	1	Locknut
25	9025807 (8000)	1	Screw, hex socket head shoulder
26	11873 (8000)	1	Roll pin retainer

NOTES:

Steering Plus™ Steering System (New Style)

Figure 5-12. Steering Plus™ Steering System (New Style)

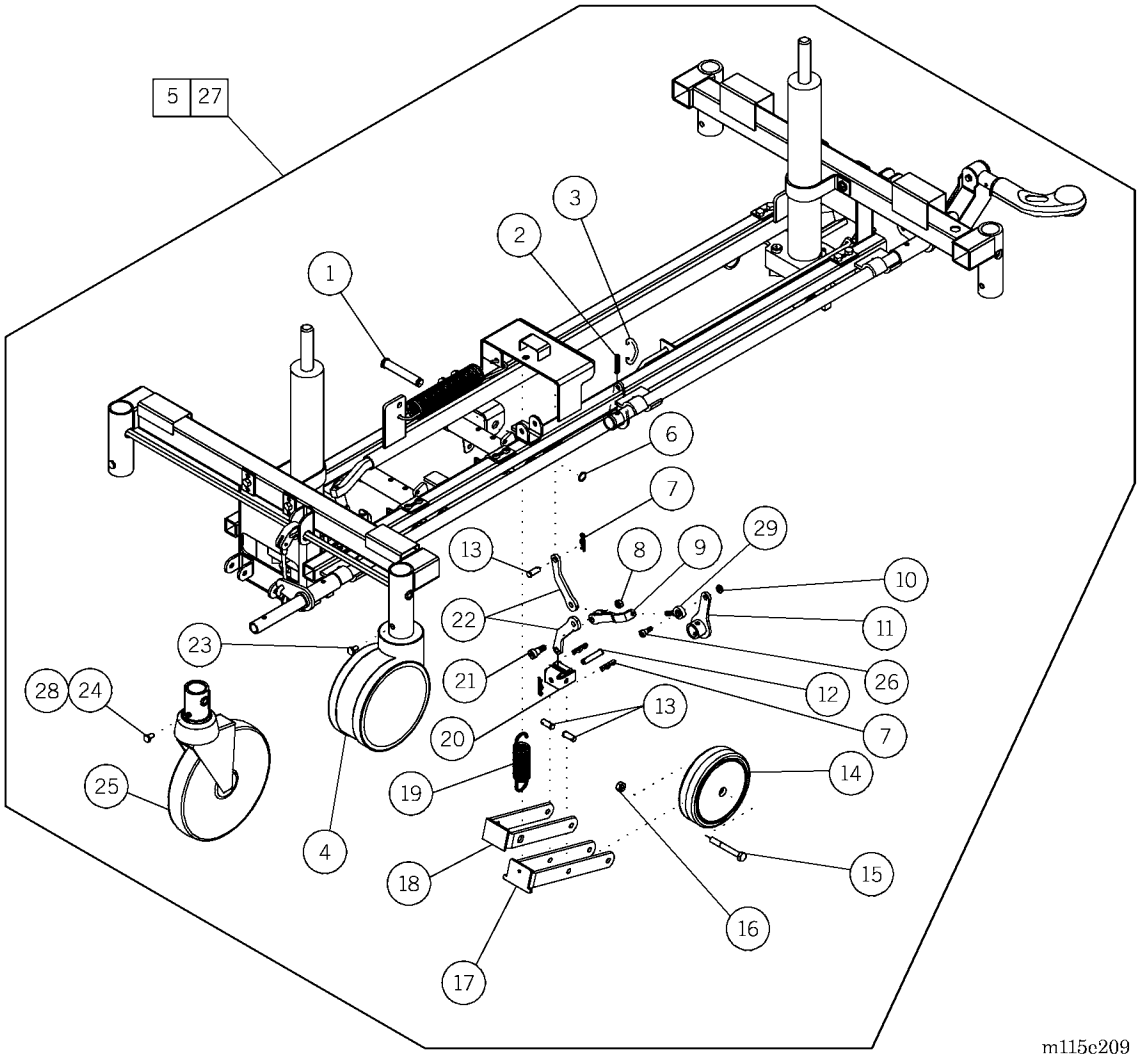


Table 5-11. Steering Plus™ Steering System (New Style)

Item Number	Part Number	Quantity	Description
1	46453 (8000)	1	Headed pin
2	12434 (8000)	1	Roll pin
3	11873 (8000)	1	Roll pin retainer
4	9022925 (8000)	2	Brake caster (surgical strtetcher)
5	(8000)	1	6088103 Steering Plus™ (surgical stretcher) is no longer available. Order 4613307 Steering Plus™.
6	37652 (8000)	1	Retaining ring
7	6029403 (8000)	4	Cotter pin
8	45823 (8000)	1	Hexnut
9	46119 (8000)	1	Fifth wheel arm weldment
10	755 (8000)	1	Locknut
11	46055 (8000)	1	Fifth wheel lever arm weldment
12	4618703 (8000)	1	Headed pin, 1.531
13	4618702 (8000)	3	Headed pin, 0.809
14	SA3712 (8000)	1	Wheel, tente, 5"
15	9001636 (8000)	1	Screw, hex head cap
16	831 (8000)	1	Locknut
17	46152pl (8000)	1	Mounting bracket weldment assembly, fifth wheel
18	46104 (8000)	1	Wheel link welded assembly
19	46357 (8000)	1	Spring, fifth wheel
20	46127 (8000)	1	Universal box weldment
21	9025812 (8000)	1	Screw, hex socket head shoulder
22	46126 (8000)	2	Fifth wheel link
23	48923 (8000)	2	Screw, metric caster
24	46098 (8000)	1	Screw, caster
25	9022919 (8000)	1	Brake caster
26	9025508 (8000)	1	Screw, hex socket head shoulder
27	4613307 (8000)	1	Steering Plus™
28	SA3618 (8000)	As required	Loctite®[a] (blue #242)
29	36291 (8000)	1	Rod end, male

a. Loctite® is a registered trademark of Loctite Corporation.

PC-100/PC-200 Procedural Stretcher Upper Frame Assembly

Figure 5-13. PC-100/PC-200 Procedural Stretcher Upper Frame Assembly

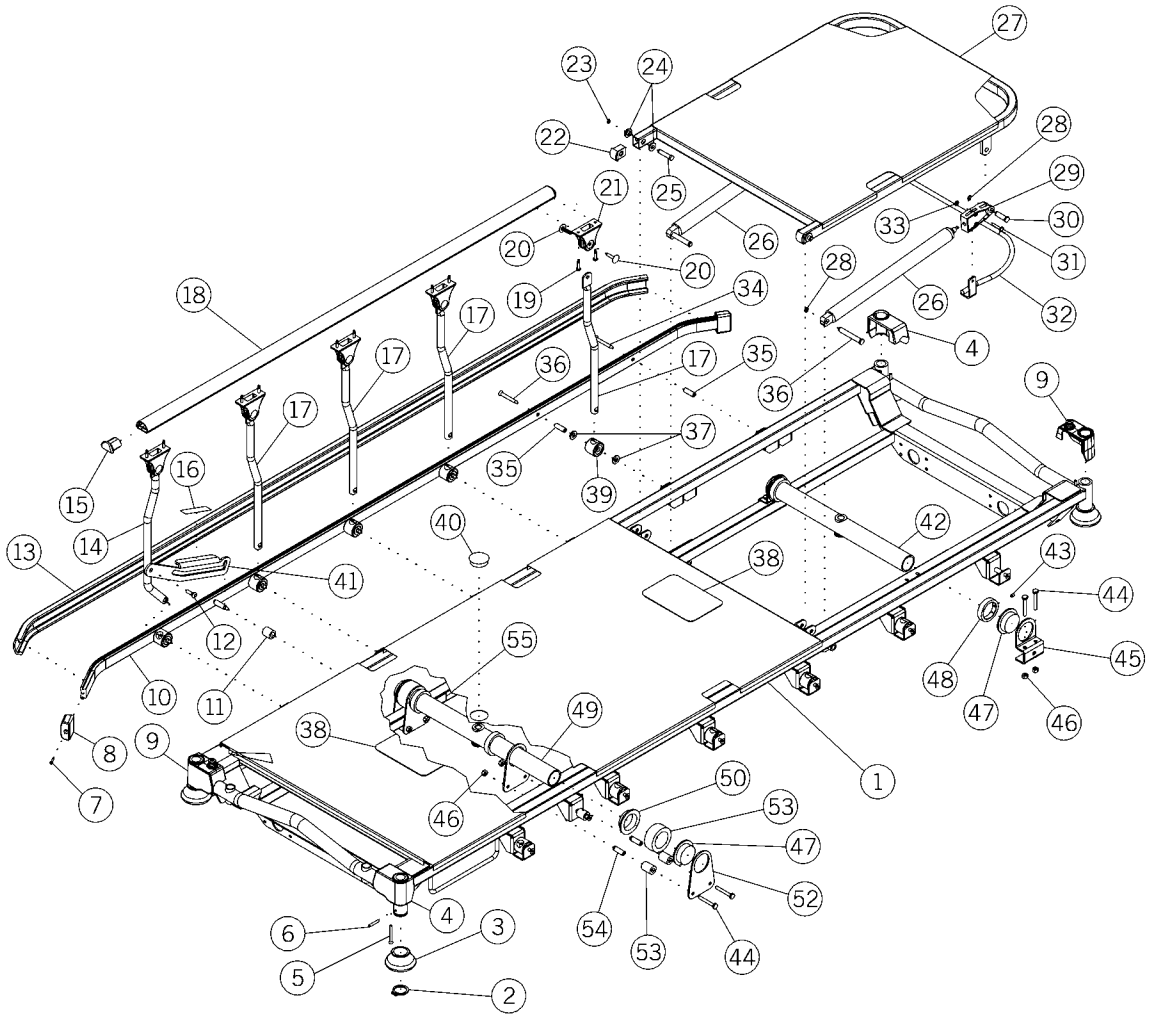


Table 5-12. PC-100/PC-200 Procedural Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	65149 (8000)	1	Upper frame weldment
2	46361 (8000)	4	Retaining ring
3	4603801 (8000)	4	Bumper, upper frame
4	46019 (8000)	2	Corner shroud, rh
5	48621 (8000)	4	Screw
6	40766 (8000)	4	Roll pin
7	46015 (8000)	4	Screw, bottom rail end cap
8	46372 (8000)	4	Bottom rail end cap
9	46029 (8000)	2	Corner shroud, lh
10	65103 (8000)	2	Bent bottom rail extrusion
11	48643 (8000)	2	Latch bushing
12	48645 (8000)	2	Latch shoulder bolt
13	4637013 (8000)	2	Bent bottom rail extrusion
14	65046 (8000)	2	Siderail tube end
15	4637156 (8000)	4	Top rail end cap
16	4647501 (8000)	2	Labels
17	65045 (8000)	8	Siderail tube
18	4606601 (8000)	2	Top rail assembly
19	43879 (8000)	20	Screw, Torx®[a] button head
20	4610302 (8000)	20	Latch ratchet rivet
21	4610656 (8000)	10	Upper pivot bracket
22	46113 (8000)	2	Tube plug
23	43059 (8000)	2	Retaining ring
24	46045 (8000)	4	Surface pivot bushing
25	4645404 (8000)	2	Pin, 1.313"
26	46191 (8000)	2	Gas spring
27	461950148 (8000)	1	Head/foot tube welded assembly (head end, standard width, non-radiolucent)
28	36957 (8000)	4	Retaining ring
29	38741 (8000)	2	Release, gas spring

a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
30	4637503pl (8000)	2	Headed pin
31	9001216 (8000)	2	Truss head rivet
32	46190 (8000)	1	Head release handle welded assembly
33	17291 (8000)	2	Push nut
34	4637504pl (8000)	2	Headed pin
35	46022pl (8000)	14	Roller guide
36	46362 (8000)	14	Lower pivot bolt
37	46116 (8000)	20	Wave washer
38	46334 (8000)	2	Mattress attachment Velcro®[a]
39	46041 (8000)	10	Lower pivot block
40	6815603 (8000)	1	Disk, reinforcing
41	68079 (8000)	1	Siderail latch
42	46197pl (8000)	1	Head support tube weldment
43	4648501 (8000)	4	Setscrew, cup point
44	9001828 (8000)	8	Screw, hex head cap
45	4602748 (8000)	2	Trendelenburg pivot bracket
46	4435 (8000)	8	Locknut
47	46110 (8000)	4	Trendelenburg outer foot bushing
48	49017pl (8000)	4	Anti-sway collar
49	46196 (8000)	1	Foot support tube weldment
50	46109 (8000)	2	Trendelenburg inner foot bushing
51	46172 (8000)	2	Trendelenburg upper roller
52	4611148 (8000)	4	Trendelenburg pivot plate
53	46023 (8000)	4	Roller bushing
54	46339pl (8000)	4	Roller guide, upper frame
55	46332 (8000)	4	Protective tape

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

NOTES:

PC-300–PC-550 Procedural Stretcher Upper Frame Assembly

Figure 5-14. PC-300–PC-550 Procedural Stretcher Upper Frame Assembly

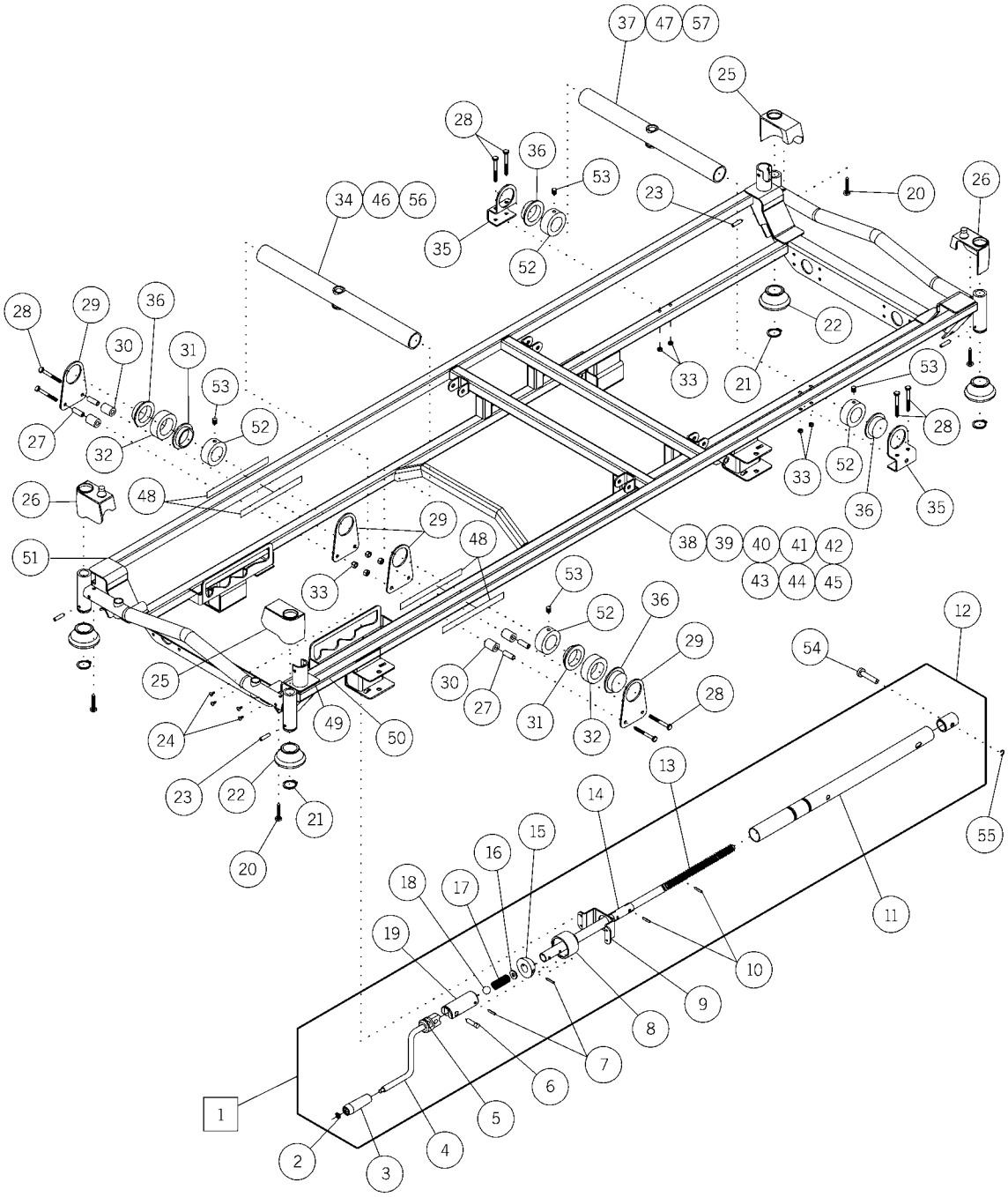


Table 5-13. PC-300–PC-550 Procedural Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	46390 (8000)	1	Knee Gatch assembly
2	36800 (8000)	1	Pushnut
3	24519 (8000)	1	Knob
4	46310pl (8000)	1	Crank handle welded assembly
5	4647503 (8000)	1	Labels
6	46479 (8000)	1	Pin
7	3517 (8000)	2	Roll pin
8	46302 (8000)	1	Knee crank socket
9	46192 (8000)	1	Knee crank mounting bracket
10	128 (8000)	2	Roll pin
11	3973201 (8000)	1	Tube and nut assembly, knee
12	40734 (8000)	1	Damper plug
13	31644 (8000)	1	Knee screw, manual
14	46304pl (8000)	1	Knee screw tube
15	46301 (8000)	1	Knee crank pivot
16	35667 (8000)	1	Washer
17	46308 (8000)	1	Knee crank spring
18	46309 (8000)	1	Detent ball
19	46307pl (8000)	1	Crank hinge, female
20	48621 (8000)	4	Twin thread screw
21	46361 (8000)	4	Retaining ring
22	46038 (8000)	4	Corner bumper
23	40766 (8000)	4	Roll pin
24	43878 (8000)	4	Screw, Torx®[a] button head
25	46019 (8000)	2	Corner shroud, rh
26	46029 (8000)	2	Corner shroud, lh
27	46339pl (8000)	4	Roller guide, upper frame
28	9001828(8000)	8	Screw, hex head cap
29	4611148 (8000)	4	Trendelenburg pivot plate
30	46023 (8000)	4	Roller bushing

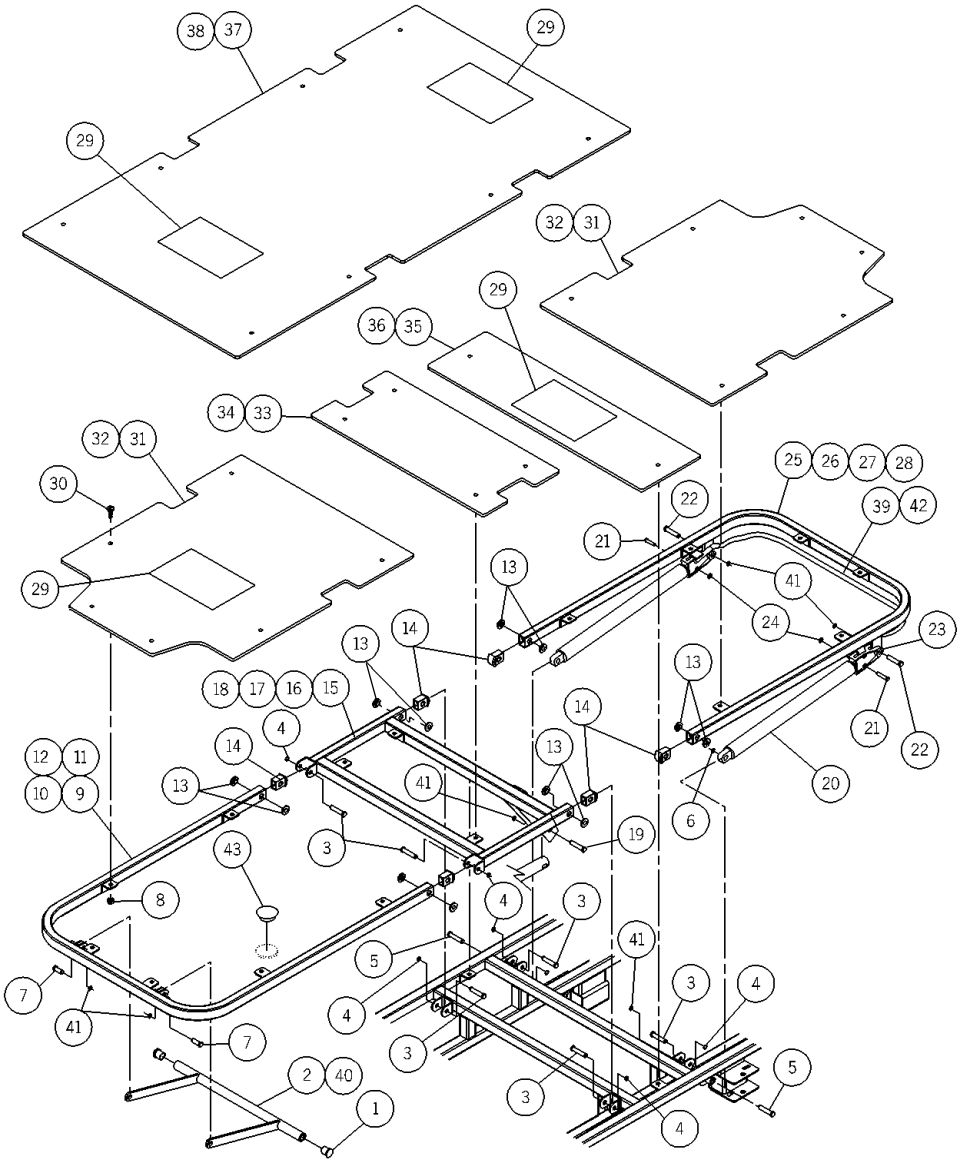
a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
31	46109 (8000)	2	Inner foot Trendelenburg bushing
32	46172 (8000)	2	Upper Trendelenburg roller
33	4435 (8000)	8	Locknut
34	4619601pl (8000) or 4619602 (8000)	1 1	Foot support tube welded assembly, wide Foot support tube welded assembly, OB
35	4602748 (8000)	2	Trendelenburg pivot bracket
36	46110 (8000)	4	Outer foot Trendelenburg bushing
37	4619701pl (8000) or 46902 (8000)	1 1	Head support tube welded assembly (standard width, knee Gatch, non-radiolucent), wide Head support tube welded assembly (standard width, knee Gatch, non-radiolucent), OB
38	4601701S48 (8000) 4979801 (8000 Europe)	1	Upper frame welded assembly (standard width, knee Gatch, non-radiolucent)
39	4601702S48 (8000) 4979802 (8000 Europe)	1	Upper frame welded assembly (standard width, knee Gatch, radiolucent)
40	4601703S48 (8000) 4979803 (8000 Europe)	1	Upper frame welded assembly (wide width, knee Gatch, non-radiolucent)
41	4601704S48 (8000) 4979804 (8000 Europe)	1	Upper frame welded assembly (wide width, knee Gatch, radiolucent)
42	4601705S48 (8000) 4979805 (8000 Europe)	1	Upper frame welded assembly (standard width, no knee Gatch, non-radiolucent)
43	4601706S48 (8000) 4979806 (8000 Europe)	1	Upper frame welded assembly (standard width, no knee Gatch, radiolucent)

Item Number	Part Number	Quantity	Description
44	4601707S48 (8000) 4979807 (8000 Europe)	1	Upper frame welded assembly (wide width, no knee Gatch, non-radiolucent)
45	4601708S48 (8000) 4979808 (8000 Europe)	1	Upper frame welded assembly (wide width, no knee Gatch, radiolucent)
46	4619601pl (8000) or 4619602 (8000)	1 1	Foot support tube welded assembly (wide width) Foot support tube welded assembly, OB
47	4619701pl (8000) or 4619702 (8000)	1 1	Head support tube welded assembly (wide width) Head support tube welded assembly, OB
48	46332 (8000)	4	Protective tape
49	4647504 (8000)	1	Labels
50	4647506 (8000)	1	Labels
51	4647505 (8000)	1	Labels
52	49017pl (8000)	4	Anti-sway collar
53	4648501(8000)	4	Setscrew, cup point
54	4637501pl (8000)	1	Headed pin, 1.625"
55	36957 (8000)	1	Retaining ring
56	4619602pl (8000)	1	Foot support tube welded assembly (OB/GYN)
57	4619702pl (8000)	1	Head support tube welded assembly (OB/GYN)

PC-300–PC-550 Procedural Stretcher Upper Frame Panel Assembly

Figure 5-15. PC-300–PC-550 Procedural Stretcher Upper Frame Panel Assembly



m115_007

Table 5-14. PC-300–PC-550 Procedural Stretcher Upper Frame Panel Assembly

Item Number	Part Number	Quantity	Description
1	2945748 (8000)	2	Hole plug
2	4644648 (8000)	1	Foot rack welded assembly
3	4645404 (8000)	6	Headed pin, 1.313"
4	43059 (8000)	6	Retaining ring
5	4637504pl (8000)	2	Headed pin
6	36959 (8000)	2	Trendelenburg pivot rod
7	4637502pl (8000)	2	Headed pin, 0.688"
8	20802 (8000)	14 or 18	Nut, keps
9	461950548 (8000)	1	Head/ foot tube welded assembly (foot end, standard width, non-radiolucent)
10	461950648 (8000)	1	Head/ foot tube welded assembly (foot end, standard width, radiolucent)
11	461950748 (8000)	1	Head/ foot tube welded assembly (foot end, wide width, non-radiolucent)
12	461950848 (8000)	1	Head/ foot tube welded assembly (foot end, wide width, radiolucent)
13	46045 (8000)	12	Surface pivot bushing
14	46113 (8000)	6	Tube plug
15	461980148 (8000)	1	Thigh panel welded assembly (standard width, non-radiolucent)
16	461980248 (8000)	1	Thigh panel welded assembly (standard width, radiolucent)
17	461980348 (8000)	1	Thigh panel welded assembly (wide width, non-radiolucent)
18	461980448 (8000)	1	Thigh panel welded assembly (wide width, radiolucent)
19	4637501pl (8000)	1	Headed pin, 1.625"
20	4619101 (8000)	2	Gas spring
21	9001216 (8000)	2	Truss head rivet
22	4637503pl (8000)	2	Headed pin

Item Number	Part Number	Quantity	Description
23	38741 (8000)	2	Release, gas spring
24	17291 (8000)	2	Push nut
25	461950148 (8000)	1	Head/foot tube welded assembly (head end, standard width, non-radiolucent)
26	461950248 (8000)	1	Head/foot tube welded assembly (head end, standard width, radiolucent)
27	461950348 (8000)	1	Head/foot tube welded assembly (head end, wide width, non-radiolucent)
28	461950448 (8000)	1	Head/foot tube welded assembly (head end, wide width, radiolucent)
29	46334 (8000)	2	Mattress attachment Velcro®[a]
30	40522 (8000)	14 or 18	Step bolt
31	46435 (8000)	2	Resiten®[b] head/foot panel (standard width)
32	4643501 (8000)	2	Resiten® head/foot panel (wide width)
33	46438 (8000)	1	Resiten® thigh panel (standard width)
34	4643801 (8000)	1	Resiten® thigh panel wide
35	46437 (8000)	1	Resiten® seat panel (standard width)
36	4643701 (8000)	1	Resiten® seat panel (wide width)
37	46439 (8000)	1	Resiten® foot panel, no knee (standard width)
38	4643901 (8000)	1	Resiten® foot panel, no knee (wide width)
39	46190 (8000)	1	Head release handle welded assembly (standard width)
40	464460148 (8000)	1	Foot rack welded assembly (wide width)
41	36957 (8000)	7	Retaining ring
42	4619001pl (8000)	1	Head release handle welded assembly (wide width)
43	3815603 (8000)	1	Hole plug, 1.672" black

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).
b. Resiten® is a registered trademark of L.C. Industries, Inc.

NOTES:

Surgical Stretcher Upper Frame Assembly

Figure 5-16. Surgical Stretcher Upper Frame Assembly

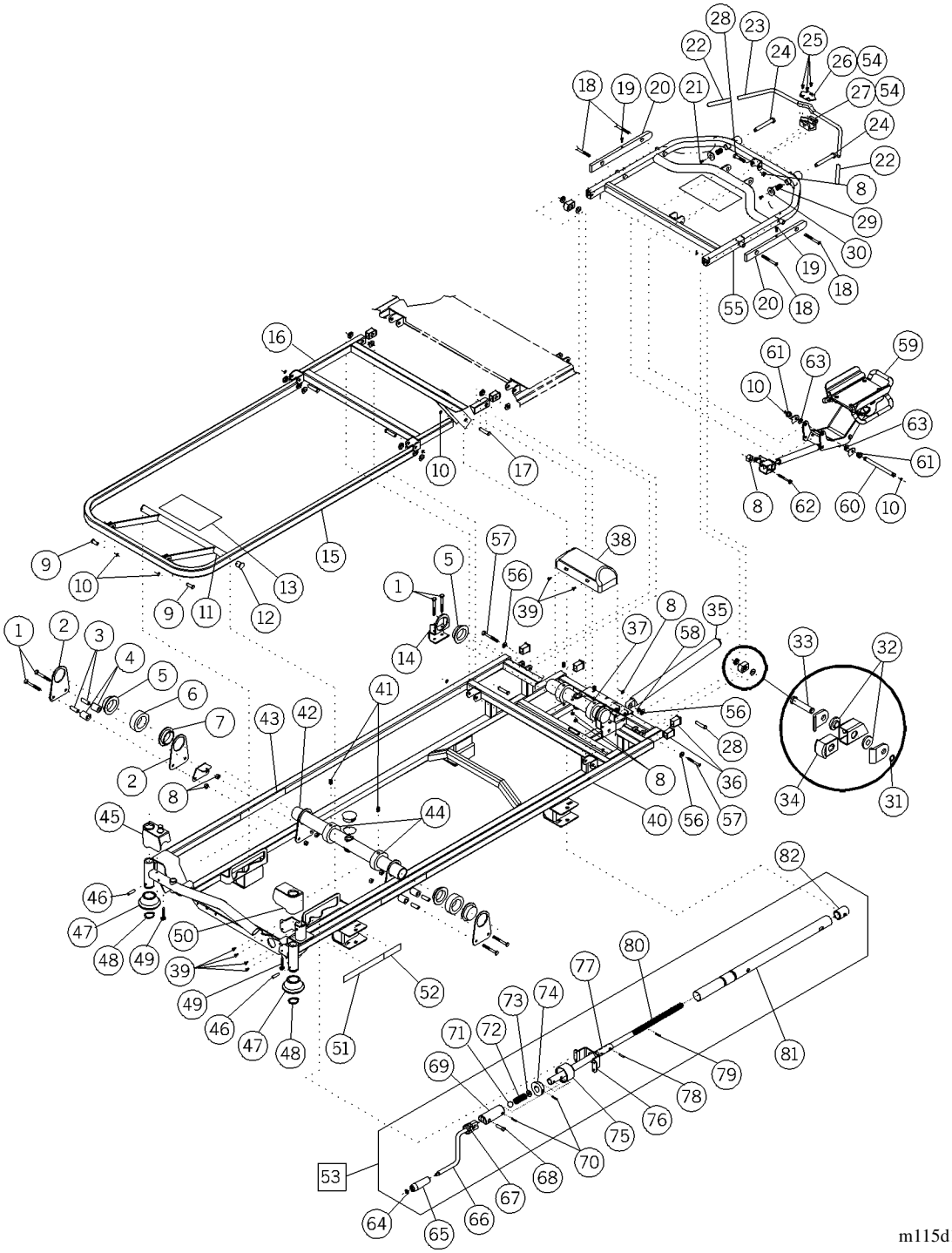


Table 5-15. Surgical Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	9001828 (8000)	6	Screw, hex head cap
2	4611148 (8000)	4	Trendelenburg pivot plate
3	46023 (8000)	4	Roller bushing
4	46339pl (8000)	4	Roller guide, upper frame
5	46110 (8000)	4	Outer foot Trendelenburg bushing
6	46172 (8000)	2	Upper Trendelenburg roller
7	46109 (8000)	2	Inner foot Trendelenburg bushing
8	4435 (8000)	7	Locknut
9	4637502pl (8000)	2	Headed pin, 0.688"
10	36957 (8000)	5	Retaining ring
11	4644648 (8000)	1	Foot rack welded assembly
12	2945748 (8000)	2	Hole plug
13	46334 (8000)	2	Mattress attachment Velcro®[a]
14	61684 (8000)	1	Head end pivot bracket
15	4637448 (8000)	1	Extended foot panel weldment
16	461980148 (8000)	1	Thigh panel welded assembly
17	4637501pl (8000)	1	Headed pin, 1.625"
18	60806 (8000)	4	Screw, phillips flat head
19	6078601 (8000)	2	Screw, socket head cap
20	49063 (8000)	2	Equipment (accessory) rail
21	14995 (8000)	2	Screw
22	3972301 (8000)	2	Pedal sleeve
23	46003 (8000)	1	Release weldment, Fowler adjustment
24	46379 (8000)	2	Screw, socket head cap
25	371 (8000)	3	Screw
26	48639pl (8000)	1	Cover, gas spring release
27	48637 (8000)	1	Gas spring release
28	9025824 (8000)	2	Screw, hex socket head shoulder

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Item Number	Part Number	Quantity	Description
29	60831 (8000)	2	Fowler plunger spring
30	46393 (8000)	2	Fowler plunger head
31	43059 (8000)	6	Retaining ring
32	46045 (8000)	12	Surface pivot bushing
33	4645404 (8000)	6	Headed pin, 1.313"
34	46113 (8000)	6	Tube plug
35	60816 (8000)	1	Surgical back section gas spring
36	49699 (8000)	4	Knee standoff plug
37	4619702 (8000)	1	Head support tube weldment
38	46376 (8000)	1	Trendelenburg axle cover
39	43878 (8000)	6	Screw, Torx®[a] button head
40	48660 (8000)	1	Weldment, upper frame, surgical
41	4648501 (8000)	4	Setscrew, cup point
42	46196pl (8000)	1	Foot support tube welded assembly
43	46332 (8000)	4	Protective tape
44	49017pl (8000)	4	Anti-sway collar
45	46029 (8000)	1	Corner shroud, lh
46	40766 (8000)	2	Roll pin
47	46038 (8000)	2	Corner bumper
48	46361 (8000)	2	Retaining ring
49	48621 (8000)	2	Twin threaded screw
50	46019 (8000)	1	Corner shroud, rh
51	4903405 (8000)	1	Labels—surgical model
52	4647506 (8000)	1	Labels
53	4639003(8000)	1	Knee gatch assembly
54	SA3351 (8000)	As required	4 oz. lithium grease
55	4863648 (8000)	1	Weldment, backrest frame
56	35667 (8000)	4	Washer
57	42574 (8000)	2	Screw
58	831 (8000)	2	Lock nut
59	60823S (8000)	1	Articulating head rest
60	49665 (8000)	1	Shaft, lift arm attachment

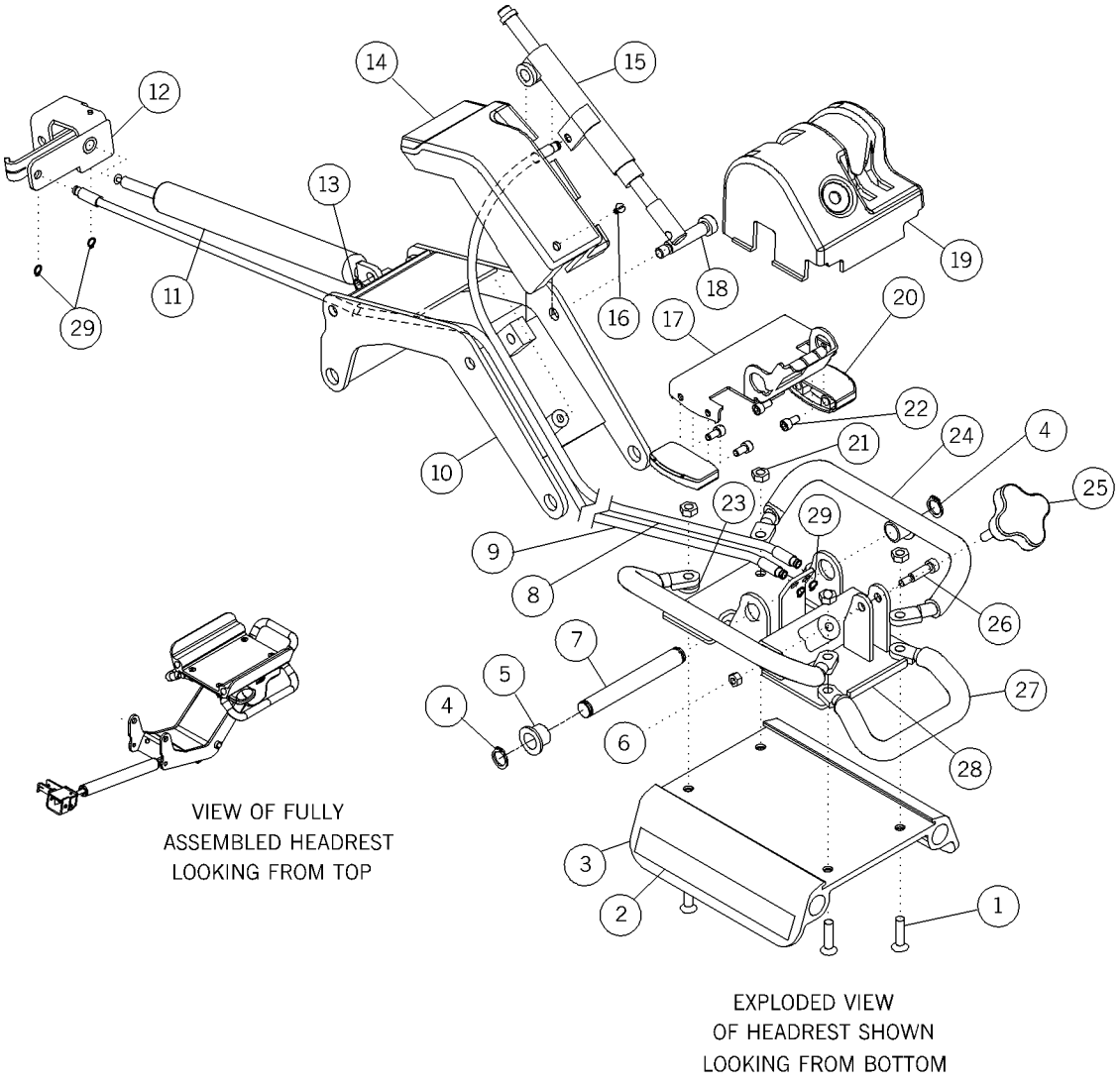
a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
61	3657001 (8000)	2	Oilite®[a] bearing
62	9025832 (8000)	1	Screw, hex socket head shoulder
63	60818 (8000)	2	Washer
64	36800 (8000)	1	Pushnut
65	24519 (8000)	1	Knob
66	46310 (8000)	1	Crank handle weldment
67	4647503 (8000)	1	Labels
68	46479 (8000)	1	Pin
69	46307 (8000)	1	Crank hinge, female
70	3517 (8000)	2	Roll pin
71	46309 (8000)	1	Detent ball
72	46308 (8000)	1	Knee crank spring
73	35667 (8000)	1	Washer
74	46301 (8000)	1	Knee crank pivot
75	46302 (8000)	1	Knee crank socket
76	46192 (8000)	1	Knee crank mounting bracket tube
77	4630401 (8000)	1	Surgical knee screw tube
78	128 (8000)	1	Roll pin
79	124 (8000)	1	Roll pin
80	31644 (8000)	1	Knee screw manual
81	3973201 (8000)	1	Tube and nut assembly, knee
82	40734 (8000)	1	Damper plug
NI[b]	46155 (8000)	1	Head positioning strap
NI			Headrest (see “Mattresses” on page 5-170)

a. Oilite® is a registered trademark of Beemer Precision, Inc.
b. NI - Not Indicated.

Surgical Stretcher Upper Frame—Articulating Headrest

Figure 5-17. Surgical Stretcher Upper Frame—Articulating Headrest



m115c155

Table 5-16. Surgical Stretcher Upper Frame—Articulating Headrest

Item Number	Part Number	Quantity	Description
1	9006116 (8000)	4	Screw, flat head
2	61548 (8000)	4	Velcro®[a] strip
3	49679 (8000)	1	Headrest plate
4	36826 (8000)	2	Retaining ring
5	36889 (8000)	2	Oilite®[b] bushing
6	755 (8000)	1	Locknut
7	49663 (8000)	1	Head rest pivot shaft
8	6051901 (8000)	1	Mechlok®[c] cable
9	6051902 (8000)	1	Gas spring cable
10	49656 (8000)	1	Lift arm weldment
11	60807 (8000)	1	Gas spring
12	60817 (8000)	1	Gas spring actuator assembly
13	43059 (8000)	1	Retaining ring
14	60828 (8000)	1	Lift arm, shroud
15	49032 (8000)	1	Mechlok® device
16	46015 (8000)	1	Screw, end cap
17	49664 (8000)	1	Release/cable draw
18	9025924 (8000)	1	Screw, hex socket head shoulder
19	60827 (8000)	1	Head shroud
20	46108 (8000)	2	Push handle release
21	4435 (8000)	4	Locknut
22	9026706 (8000)	4	Cap screw
23	25283 (8000)	2	Washer
24	46167 (8000)	2	Side handle
25	61549 (8000)	1	Release knob
26	9033812 (8000)	1	Shoulder screw
27	60830 (8000)	1	Top handle
28	49660 (8000)	1	Bracket weldment
29	37255 (8000)	4	Retaining ring

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).
b. Oilite® is a registered trademark of Beemer Precision, Inc.
c. Mechlok® is a registered trademark of P. L. Porter Company.

OB/GYN Stretcher Upper Frame Assembly (Sheet 1 of 2)

Figure 5-18. OB/GYN Stretcher Upper Frame Assembly (Sheet 1 of 2)

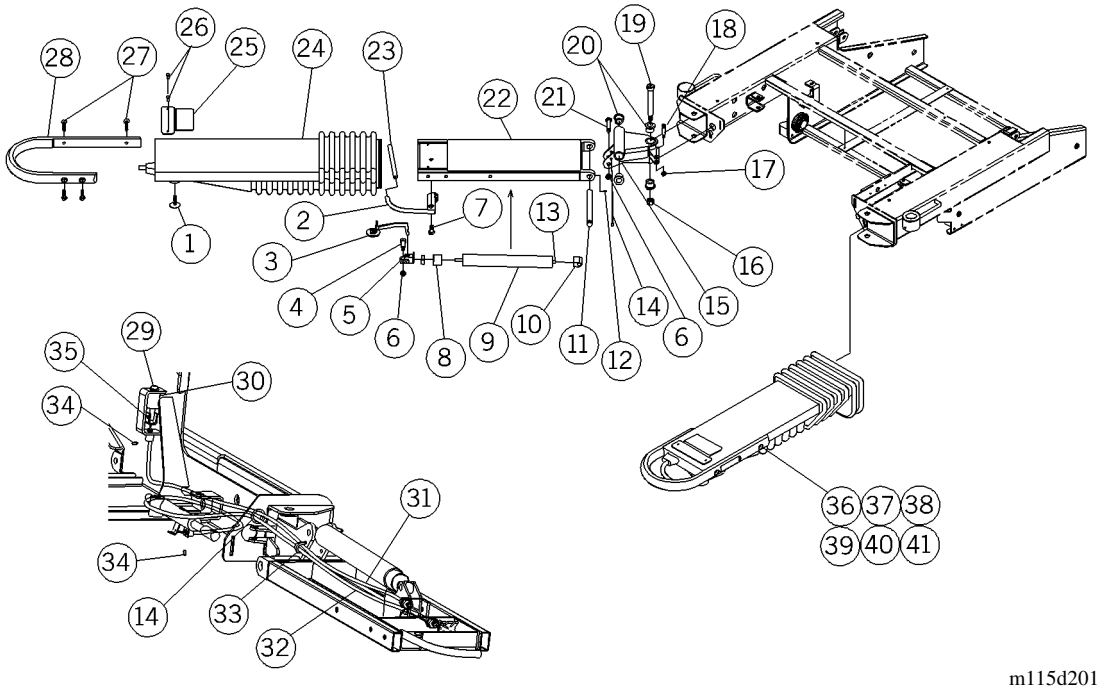


Table 5-17. OB/GYN Stretcher Upper Frame Assembly (Sheet 1 of 2)

Item Number	Part Number	Quantity	Description
1	60826 (8000)	2	Ratchet fastener
2	6296001 (8000)	1	Release handle weldment, rh
3	6297601 (8000)	1	Foot support weldment, rh
4	9025812 (8000)	2	Screw, hex socket head shoulder
5	61285 (8000)	2	Trendelenburg gas spring release head
6	9023404 (8000)	4	Nut
7	9025806 (8000)	2	Screw, hex socket head shoulder
8	62926 (8000)	2	Gas spring spacer
9	61184 (8000)	2	Gas spring
10	62965 (8000)	2	Rod end
11	62990 (8000)	2	Pivot pin
12	9033005 (8000)	2	Setscrew
13	SA4841 (8000)	As required	Loctite®[a] (red #262)
14	19124 (8000)	2	Large cable tie
15	6117801 (8000)	1	Foot support base weldment, rh
16	9023428 (8000)	2	Locknut
17	60620 (8000)	2	Nut
18	9033812 (8000)	2	Shoulder screw
19	9026044 (8000)	2	Shoulder screw
20			P/N 62964 flanged bearing is no longer available. Order P/N 6117801 foot support base weldment, rh or P/N 6117802 foot support base weldment, lh instead.
21	9025824 (8000)	2	Screw, hex socket head shoulder
22	6289301 (8000)	1	Foot rest weldment, rh
23	62919 (8000)	2	Vinyl dipped cap, release handle
24	6296801 (8000)	1	Foot support bellows, rh
25	62989 (8000)	2	Mattress retainer
26	43878 (8000)	8	Screw, Torx®[b] button head
27	64466 (8000)	8	Screw, Torx® flat head

a. Loctite® is a registered trademark of Loctite Corporation.
b. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
28	62959 (8000)	2	Foot support bumper/handle
29	6081902 (8000)	2	OB/GYN latch pin
30	61293 (8000)	2	Flat control spring
31	62987 (8000)	2	Carriage cable
32	62988 (8000)	2	Foot angle cable
33	4649101 (8000)	2	Split bushing
34	37255 (8000)	4	Retaining ring
35	6124701 (8000)		Blind rivets
36	6297602 (8000)	1	Foot support weldment, lh
37	6296002 (8000)	1	Release handle weldment, lh
38	6117802 (8000)	1	Foot support base weldment, lh
39	6289302 (8000)	1	Foot rest weldment, lh
40	6296802 (8000)	1	Foot support bellows, lh
41	60825 (8000)	1	Glide slide
NI[a]	6291005 (8000)	2	Label, calf support storage
NI	6291004 (8000)	2	Label, side pivot
NI	6291003 (8000)	1	Label, foot support lift
NI	6291002 (8000)	1	Label, foot support lift
NI	6291001 (8000)	1	Label, OB product
NI	4647506 (8000)	1	Labels (serial number)

a. NI - Not Indicated

NOTES:

OB/GYN Stretcher Upper Frame Assembly (Sheet 2 of 2)

Figure 5-19. OB/GYN Stretcher Upper Frame Assembly (Sheet 2 of 2)

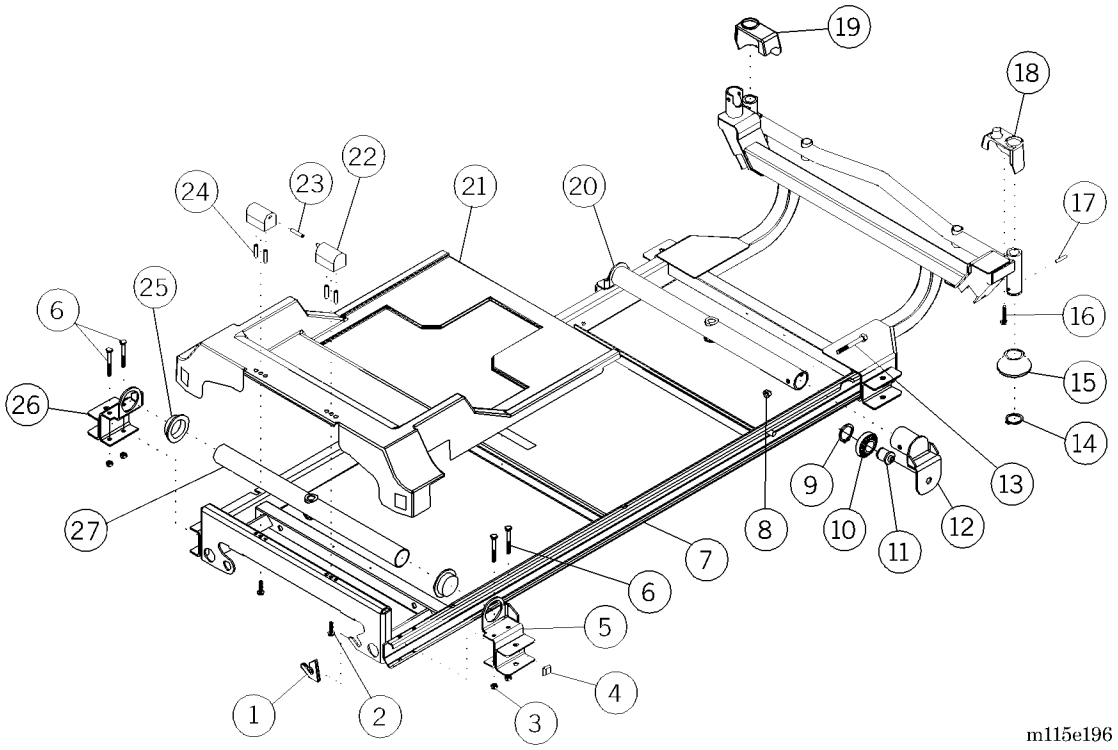


Table 5-18. OB/GYN Stretcher Upper Frame Assembly (Sheet 2 of 2)

Item Number	Part Number	Quantity	Description
1	62916 (8000)	1	Light head sleeve
2	60408 (8000)	2	Screw, phillips pan head
3	4435 (8000)	4	Locknut
4	62970 (8000)	2	Bumper
5	6297902 (8000)	1	Weldment, foot Trendelenburg pivot
6	9001848 (8000)	4	Screw, hex head cap
7	62891 (8000)	1	Upper frame fixed weldment
8	831 (8000)	3	Locknut
9	49091 (8000)	2	Retaining ring
10	62986 (8000)	2	Retracting roller
11	62978 (8000)	2	Roller boss
12	49631 (8000)	1	Head cross tube cap weldment
13	9001636 (8000)	1	Screw
14	46361 (8000)	2	Retaining ring
15	46038 (8000)	2	Corner bumper
16	48621 (8000)	2	Twin thread screw
17	40766 (8000)	2	Roll pin
18	46029 (8000)	1	Corner shroud (with nipple), lh
19	46019 (8000)	1	Corner shroud, rh
20	62981 (8000)	1	Head Trendelenburg tube weldment
21	62958 (8000)	1	Upper frame catch shroud
22	61498 (8000)	2	Guide block
23	61452 (8000)	2	Dowel pin
24	39839 (8000)	4	Roll pin
25	46110 (8000)	2	Outer foot trend bushing
26	6297901 (8000)	1	Weldment, foot trendelenburg pivot
27	4619602 (8000)	1	Foot support tube welded assembly

OB/GYN Stretcher Upper Frame Panel Assembly

Figure 5-20. OB/GYN Stretcher Upper Frame Panel Assembly

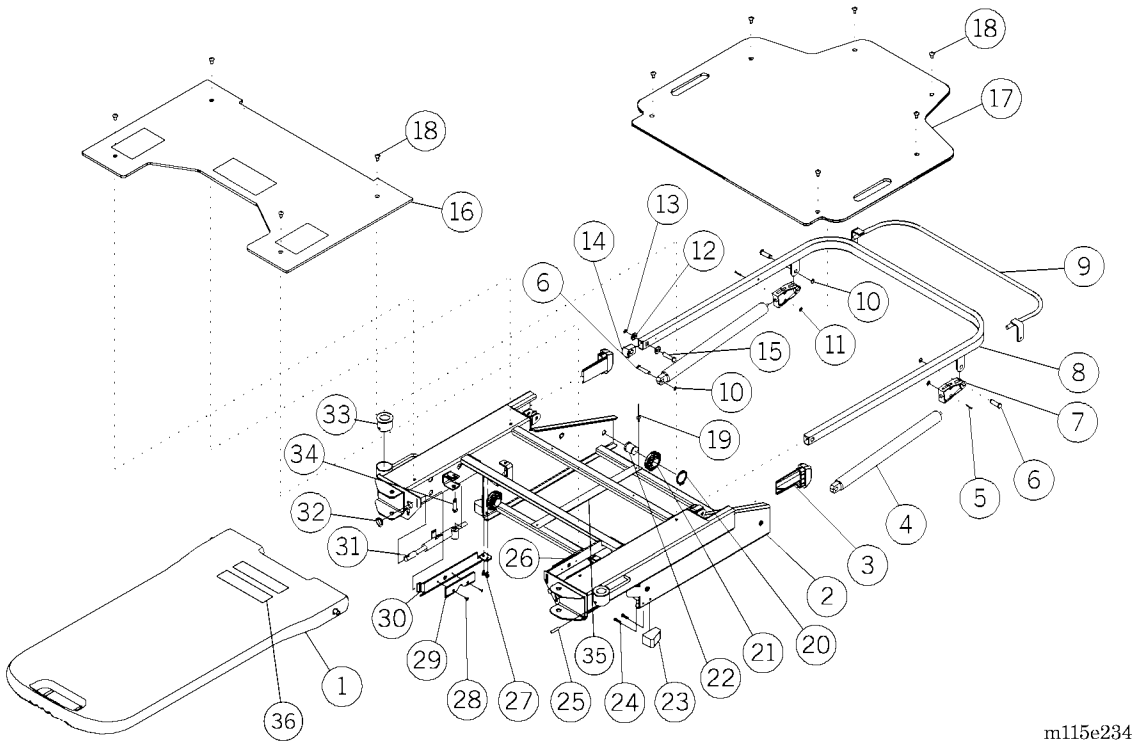


Table 5-19. OB/GYN Stretcher Upper Frame Panel Assembly

Item Number	Part Number	Quantity	Description
1	49100 (8000)	1	Foot section assembly
2	62892 (8000)	1	Carriage weldment
3	49675 (8000)	2	Carriage plug
4	46191 (8000)	2	Gas spring
5	9001216 (8000)	2	Truss head rivet
6	4637503pl (8000)	4	Headed pin, 1.045"
7	3874101 (8000)	2	Release, gas spring
8	62931 (8000)	1	Head tube weldment
9	62929 (8000)	1	Head panel release weldment
10	36957 (8000)	4	Retaining ring
11	17291 (8000)	2	Push nut
12	46045 (8000)	4	Surface pivot bushing
13	43059 (8000)	2	Retaining ring
14	46113 (8000)	2	Tube plug
15	4645404 (8000)	2	Headed pin, 1.313"
16	62927 (8000)	1	Seat panel, Resiten®[a]
17	62930 (8000)	1	Back panel, Resiten®
18	61073 (8000)	10	Drive rivet
19	49075 (8000)	4	Pop rivet
20	49091 (8000)	6	Retaining ring
21	62986 (8000)	6	Retracting roller
22	62978 (8000)	6	Roller boss
23	49635 (8000)	2	Cattle catcher
24	45809 (8000)	4	Screw
25	49086 (8000)	2	Roll pin
26	6293702 (8000)	1	Foot section guide, lh
27	43878 (8000)	8	Screw, Torx®[b] button head
28	40601 (8000)	4	Screw, phillips pan head
29	60825 (8000)	2	Glide slide

a. Resiten® is a registered trademark of L.C. Industries, Inc.
b. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
30	6293701 (8000)	1	Foot section guide, rh
31	62969 (8000)	2	Mechlok®[a] device
32	4649101 (8000)	2	Split bushing
33	62915 (8000)	2	Calf support insert
34	9025921 (8000)	2	Screw, hex socket head shoulder
35	62906 (8000)	1	Carriage strap
36	49608 (8000)	2	Velcro®[b], foot section

a. Mechlok® is a registered trademark of P. L. Porter Company.
b. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

NOTES:

Fixed Height Stretcher Upper Frame Assembly

Figure 5-21. Fixed Height Upper Frame Assembly

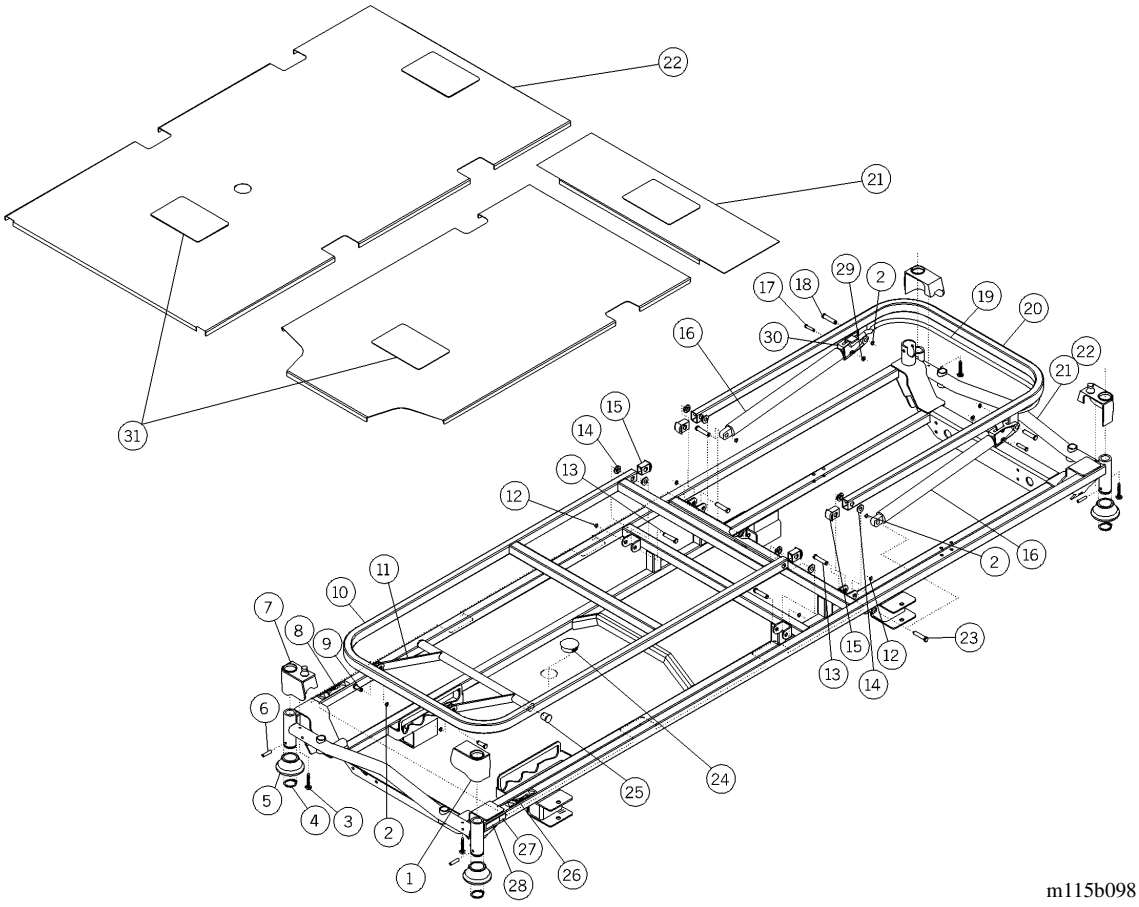


Table 5-20. Fixed Height Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	46019 (8000)	2	Corner shroud, rh
2	36957 (8000)	6	Retaining ring
3	48621 (8000)	4	Twin thread screw
4	46361 (8000)	4	Retaining ring
5	46038 (8000)	4	Corner bumper
6	40766 (8000)	4	Roll pin
7	46029 (8000)	2	Corner shroud, lh
8	6044602 (8000)	1	Label, Trendelenburg, fixed height
9	4637502pl (8000)	2	Headed pin, 0.688"
10	4637448 (8000)	1	Extended foot panel weldment (trendelenburg)
11	464460148 (8000)	1	Foot rack welded assembly
12	43059 (8000)	4	Retaining ring
13	4645404 (8000)	4	Headed pin, 1.313"
14	46045 (8000)	8	Surface pivot bushing
15	46113 (8000)	4	Tube plug
16	4619101 (8000)	2	Gas spring
17	9001216 (8000)	2	Truss head rivet
18	4637503pl (8000)	2	Headed pin
19	46190 (8000)	1	Head release handle welded assembly
20	461950148 (8000)	1	Head/foot tube welded assembly (head end, standard width, non-radiolucent)
21	4601701s48 (8000)	1	Upper frame welded assembly (trendelenburg)
22	4601705s48 (8000)	1	Upper frame welded assembly (non-trendelenburg)
23	4637504pl (8000)	2	Headed pin
24	3815603 (8000)	1	Hole plug
25	2945748 (8000)	2	Hole plug

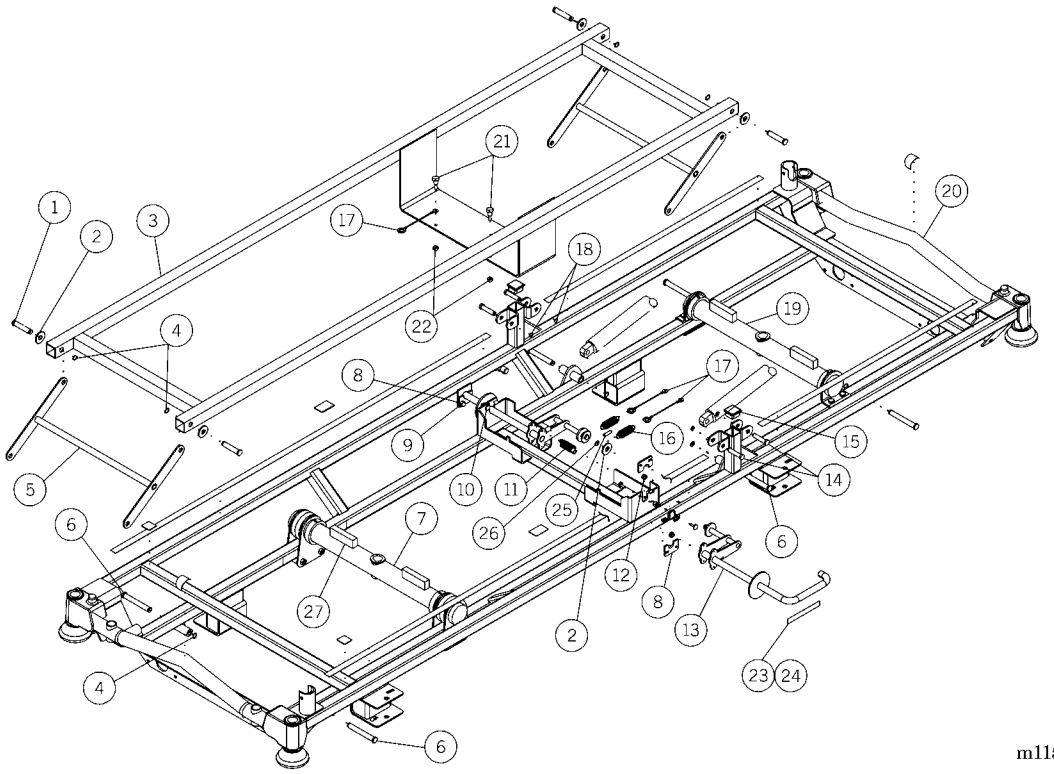
Item Number	Part Number	Quantity	Description
26	6044601 (8000)	1	Label, Trendelenburg, fixed height
27	4647506 (8000)	1	Label
28	49650 (8000)	1	Label, product, fixed height
29	17291 (8000)	2	Push nut
30	38741 (8000)	2	Release, gas spring
31	46334 (8000)	2	Mattress attachment Velcro®[a]

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

NOTES:

Trauma Stretcher Upper Frame Assembly

Figure 5-22. Trauma Stretcher Upper Frame Assembly



m115c138

Table 5-21. Trauma Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	4637501pl (8000)	4	Headed pin, 1.625"
2	43314 (8000)	6	Celcon®[a] spacer
3	6110448 (8000)	1	Cassette tray guide weldment
4	36957 (8000)	11	Retaining ring
5	60639pl (8000)	2	Lifting bar weldment
6	4637505pl (8000)	6	Headed pin, 2.686"
7	46196pl (8000)	1	Foot support tube welded assembly
8	6062748 (8000)	4	Handle bushing plate
9	60634 (8000)	4	Nylon cap nut
10	752 (8000)	4	Screw, truss head
11	61004 (8000)	1	Handle retract spring
12	4633801 (8000)	4	Split bushing
13	61072pl (8000)	2	Handle weldment
14	4645404 (8000)	4	Headed pin, 1.313"
15	49699 (8000)	2	Knee standoff plug
16	61006 (8000)	2	Trauma lift spring
17	61890 (8000)	2	Trauma lift cable
18	43059 (8000)	2	Retaining ring
19	46197pl (8000)	1	Head support tube welded assembly
20	460171148 (8000)	1	Upper frame weldment (trauma)
21	61891pl (8000)	2	Lift cable bolt
22	33680H (8000)	2	Self-locking nut
23	6084802 (8000)	1	X-ray lift label, lh
24	6084801 (8000)	1	X-ray lift label, rh
25	62018 (8000)	2	Round vinyl cap
26	49081 (8000)	2	Retaining ring
27	63824 (8000)	4	Tray dampening, foam pad

a. Celcon® is a registered trademark of Hoechst Celanese Corporation.

Trauma Stretcher Upper Frame Panel Assembly

Figure 5-23. Trauma Stretcher Upper Frame Panel Assembly

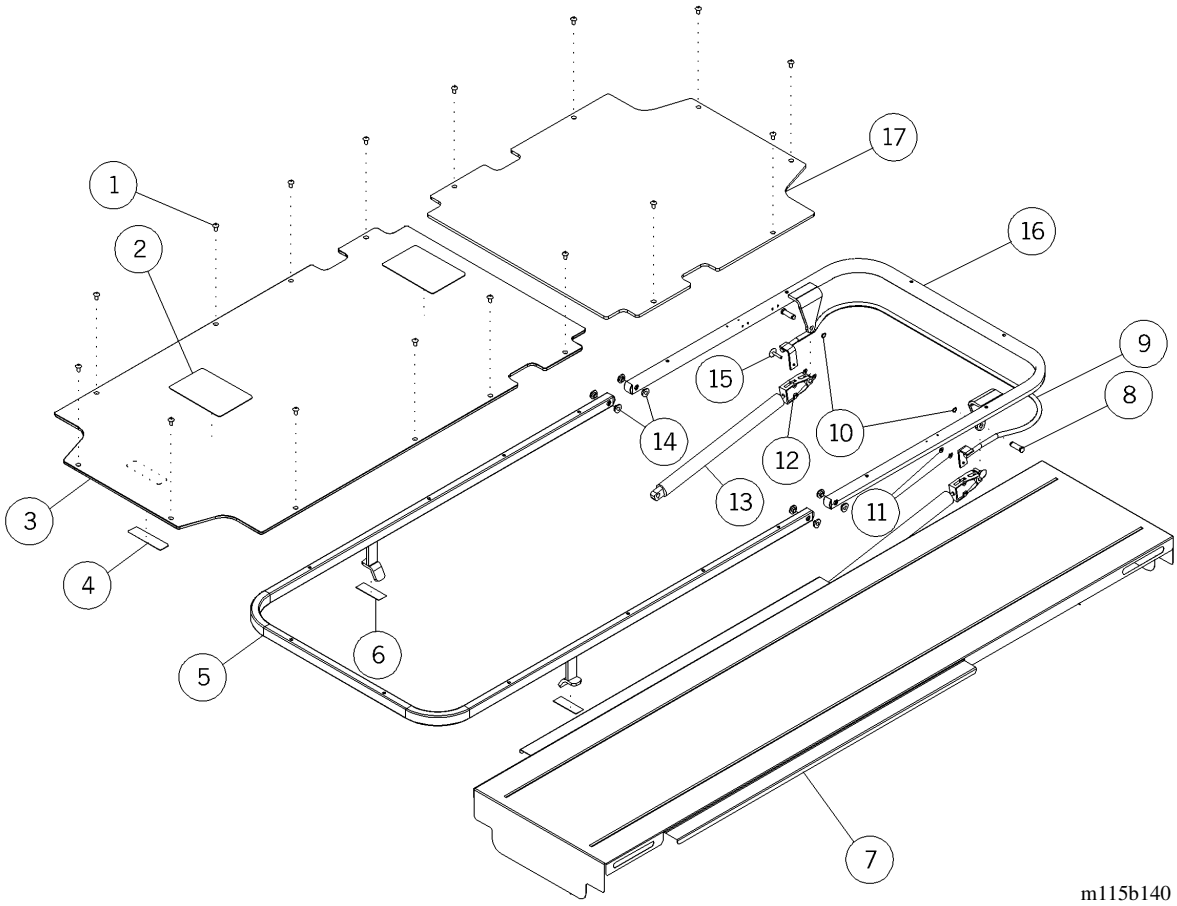


Table 5-22. Trauma Stretcher Upper Frame Panel Assembly

Item Number	Part Number	Quantity	Description
1	61073 (8000)	16	Drive rivet
2	46334 (8000)	2	Mattress attachment Velcro®[a]
3	60879 (8000)	1	Foot panel
4	60631 (8000)	1	Foot section caution label
5	6088048 (8000)	1	Foot deck weldment
6	6064701 (8000)	2	Non-skid pad
7	6064048 (8000)	1	Cassette tray
8	4637503pl (8000)	2	Headed pin
9	60741pl (8000)	1	Trauma Fowler release weldment
10	36957 (8000)	14	Retaining ring
11	17291 (8000)	2	Push nut
12	38741 (8000)	2	Release, gas spring
13	46191 (8000)	2	Gas spring
14	46045 (8000)	4	Surface pivot bushing
15	9001216 (8000)	2	Truss head rivet
16	6083448 (8000)	1	Head section weldment
17	4643502 (8000)	1	Head/foot panel

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Trauma Stretcher Upper Frame Labels

Figure 5-24. Trauma Stretcher Upper Frame Labels

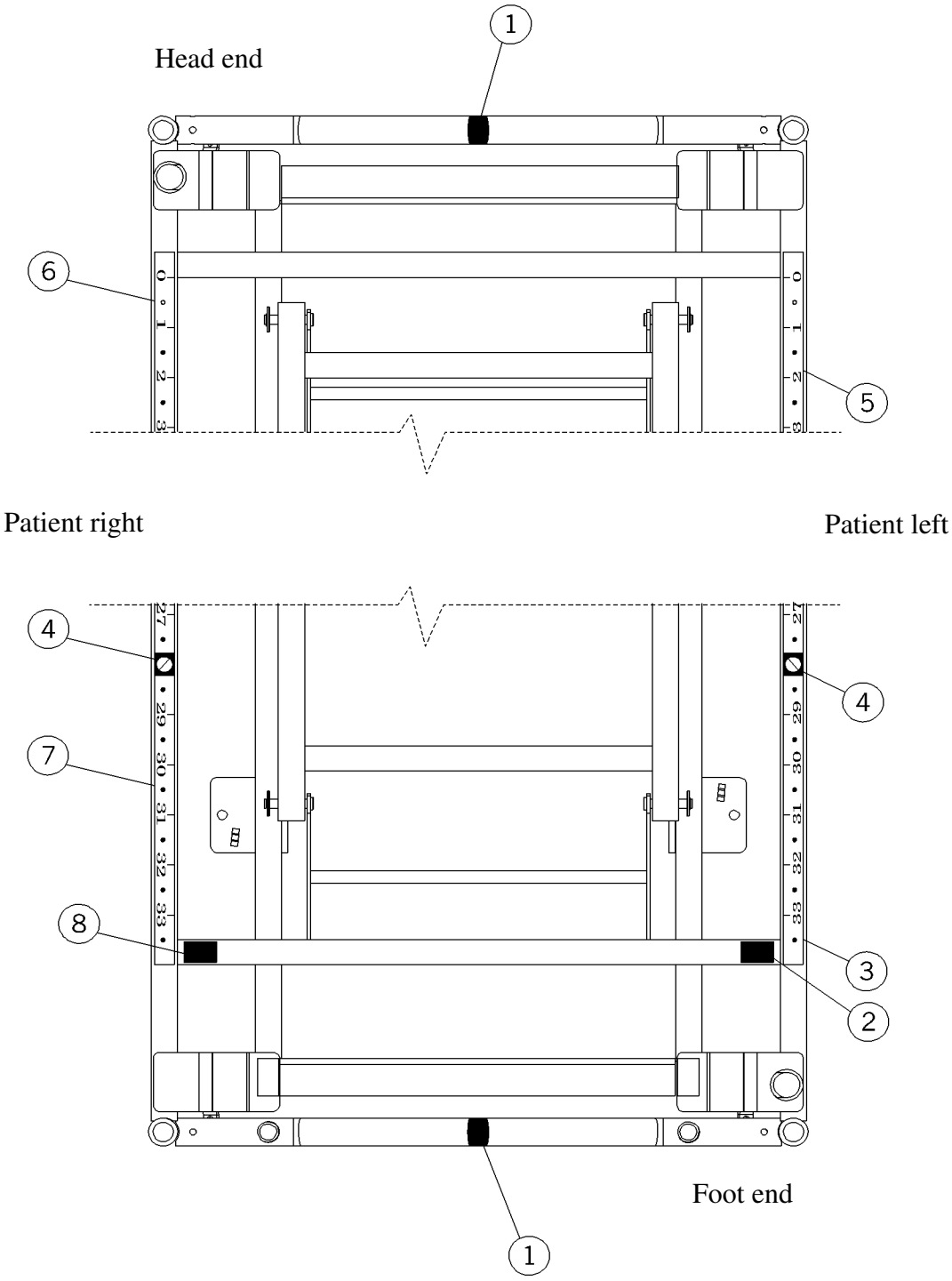


Table 5-23. Trauma Stretcher Upper Frame Labels

Item Number	Part Number	Quantity	Description
1	61093 (8000)	2	Centerline locator label
2	6121402 (8000)	1	Ankle restraint label, lh
3	6111002 (8000)	1	Foot x-ray indexing label, lh
4	61553 (8000)	2	Hand indicator label
5	6086402 (8000)	1	Head x-ray indexing label, lh
6	6086401 (8000)	1	Head x-ray indexing label, rh
7	6111001 (8000)	1	Foot x-ray indexing label rh
8	6121401 (8000)	1	Ankle restraint label, rh

Electric Stretcher Upper Frame Assembly

Figure 5-25. Electric Stretcher Upper Frame Assembly

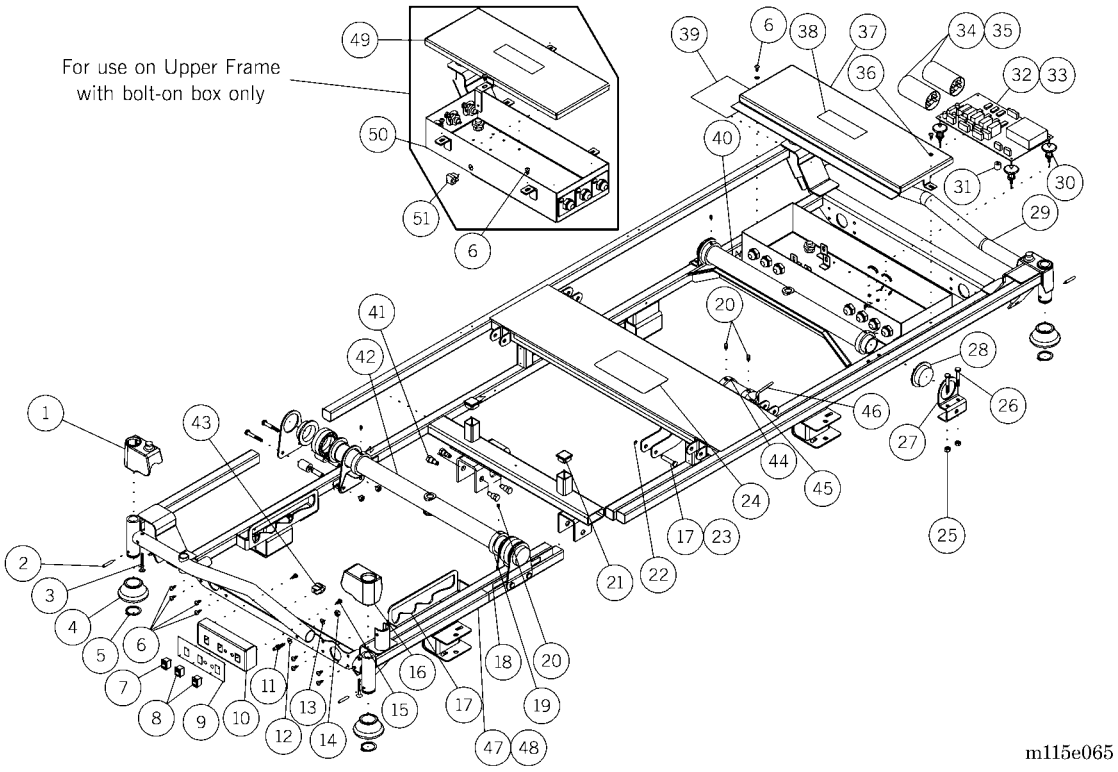


Table 5-24. Electric Stretcher Upper Frame Assembly

Item Number	Part Number	Quantity	Description
1	46029 (8000)	2	Corner shroud, lh
2	40766 (8000)	4	Roll pin
3	48621 (8000)	4	Twin thread screw
4	46038 (8000)	4	Corner bumper
5	46361 (8000)	4	Retaining ring
6	43878 (8000)	27	Screw, Torx®[a] button head
7	4274201 (8000)	1	Rocker switch, momentary
8	4143703 (8000)	2	Switch, rocker
9	4901401 (8000)	1	Label
10	4901248 (8000)	1	Lockout and x-ray switchbox
11	44125 (8000)	1	Plug (used on 230V AC version only)
12	44127 (8000)	1	Washer color code green/yellow (used on 230V AC version only)
13	44128 (8000)	1	Washer, serrated lock (used on 230V AC version only)
14	44126 (8000)	1	Nut (used on 230V AC version only)
15	43879 (8000)	2	Screw, Torx® button head
16	46019 (8000)	2	Corner shroud, rh
17	SA3351 (8000)	As required	4 oz. lithium grease
18	46332 (8000)	4	Protective tape
19	49017pl (8000)	4	Anti-sway collar
20	4648501 (8000)	4	Setscrew, cup point
21	49699 (8000)	2	Knee standoff plug
22	43059 (8000)	2	Retaining ring
23	49996pl (8000)	3	Headed pin
24	46334 (8000)	2	Mattress attachment Velcro®[b]
25	4435 (8000)	8	Locknut
26	9001828 (8000)	8	Screw, hex head cap
27	4602748 (8000)	2	Trendelenburg pivot bracket
28	46110 (8000)	4	Outer foot Trendelenburg bushing

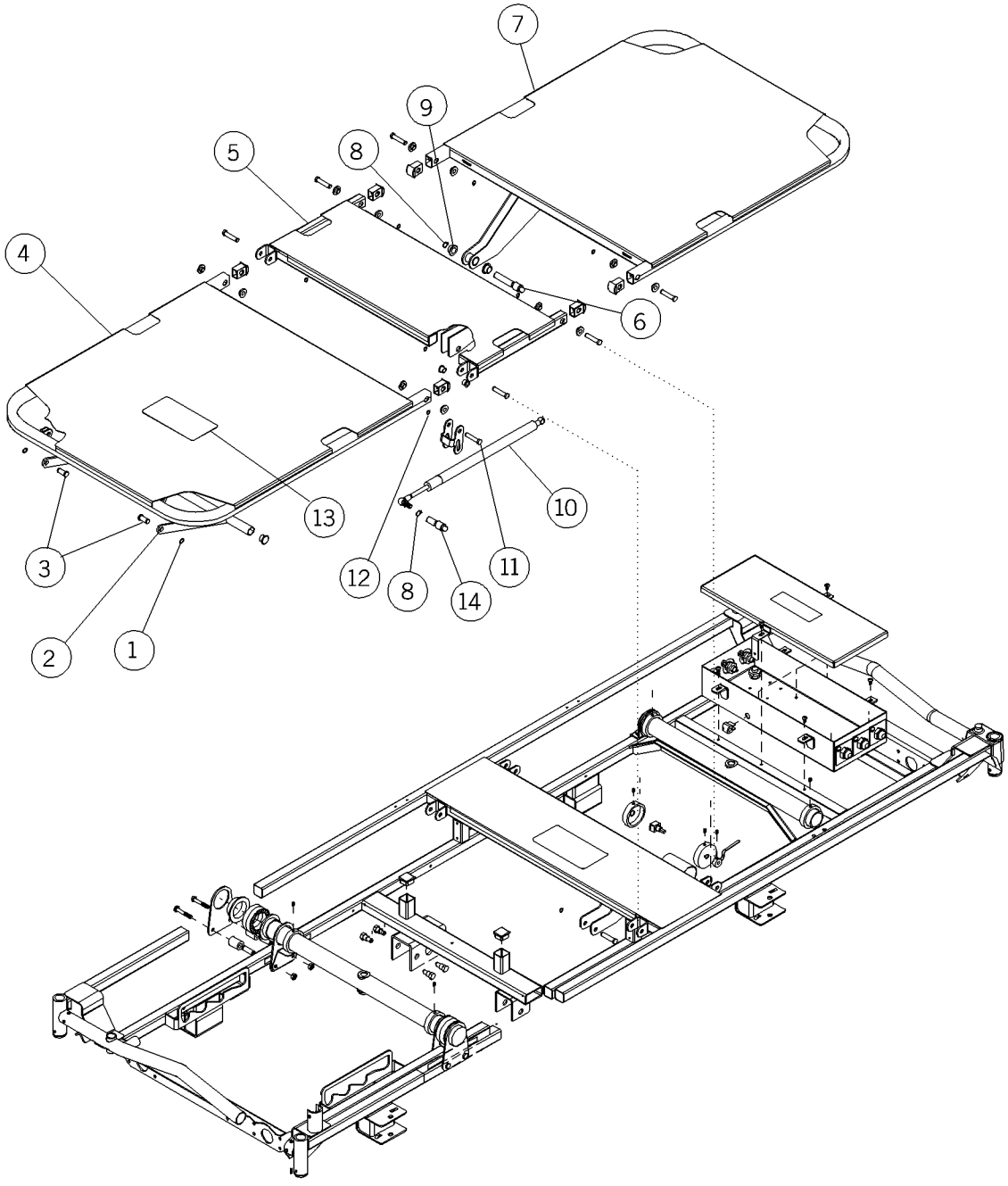
a. Torx® is a registered trademark of Textron, Inc.
b. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Item Number	Part Number	Quantity	Description
29	460171048 (8000)	1	Electric upper frame weldment
30	35663 (8000)	4	Standoff
31	369732 (8000)	1	Standoff, ¼"
32	4960301 (8000)	1	Electric stretcher control board (120V AC version)
33	4960302 (8000)	1	Electric stretcher control board (230V AC version)
34	30148 (8000)	2	Motor capacitor (130V AC version)
35	44532 (8000)	2	Motor capacitor (230V AC version)
36	23208 (8000)	2	Lockwasher
37	61188 (8000)	1	Electrical box cover
38	22247 (8000)	1	Caution label
39	60389 (8000)	1	Wiring diagram label
40	4619701pl (8000)	1	Head support tube welded assembly
41	49044 (8000)	6	Actuator mounting bolt
42	4619601pl (8000)	1	Foot support tube welded assembly
43	4964301 (8000)	1	Ninety-degree strain relief
44	49633 (8000)	1	Potentiometer cable assembly
45	4998601 (8000)	1	Potentiometer can
46	49989pl (8000)	1	Potentiometer weldment
47	4901402 (8000)	1	Label (120V AC version)
48	4901406 (8000)	1	Label (230V AC version)
49	49083 (8000)	1	Electric box cover weldment
50	4964648 (8000)	1	Electric box weldment
51	4964302 (8000)	1	Ninety-degree strain relief

NOTES:

Electric Stretcher Mattress Weldment

Figure 5-26. Electric Stretcher Mattress Weldment



m115b066

Table 5-25. Electric Stretcher Mattress Weldment

Item Number	Part Number	Quantity	Description
1	36957 (8000)	3	Retaining ring
2	464460148 (8000)	1	Foot rack welded assembly (wide width)
3	4637502pl (8000)	2	Headed pin, 0.688"
4	461950948 (8000)	1	Foot section weldment
5	461980548 (8000)	1	Electric thigh panel weldment
6	49043 (8000)	2	Actuator mounting pin
7	461951048 (8000)	1	Electric head/foot tube weldment
8	49081 (8000)	2	Retaining ring
9	49995 (8000)	2	Bushing, bronze
10	49655 (8000)	1	CPR dampener
11	49996pl (8000)	1	Headed pin
12	43059 (8000)	1	Retaining ring
13	46334 (8000)	2	Mattress attachment Velcro®[a]
14	61108 (8000)	1	Dampener mounting pin

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Electric Stretcher Head and Knee Drive Assembly

Figure 5-27. Electric Stretcher Head and Knee Drive Assembly

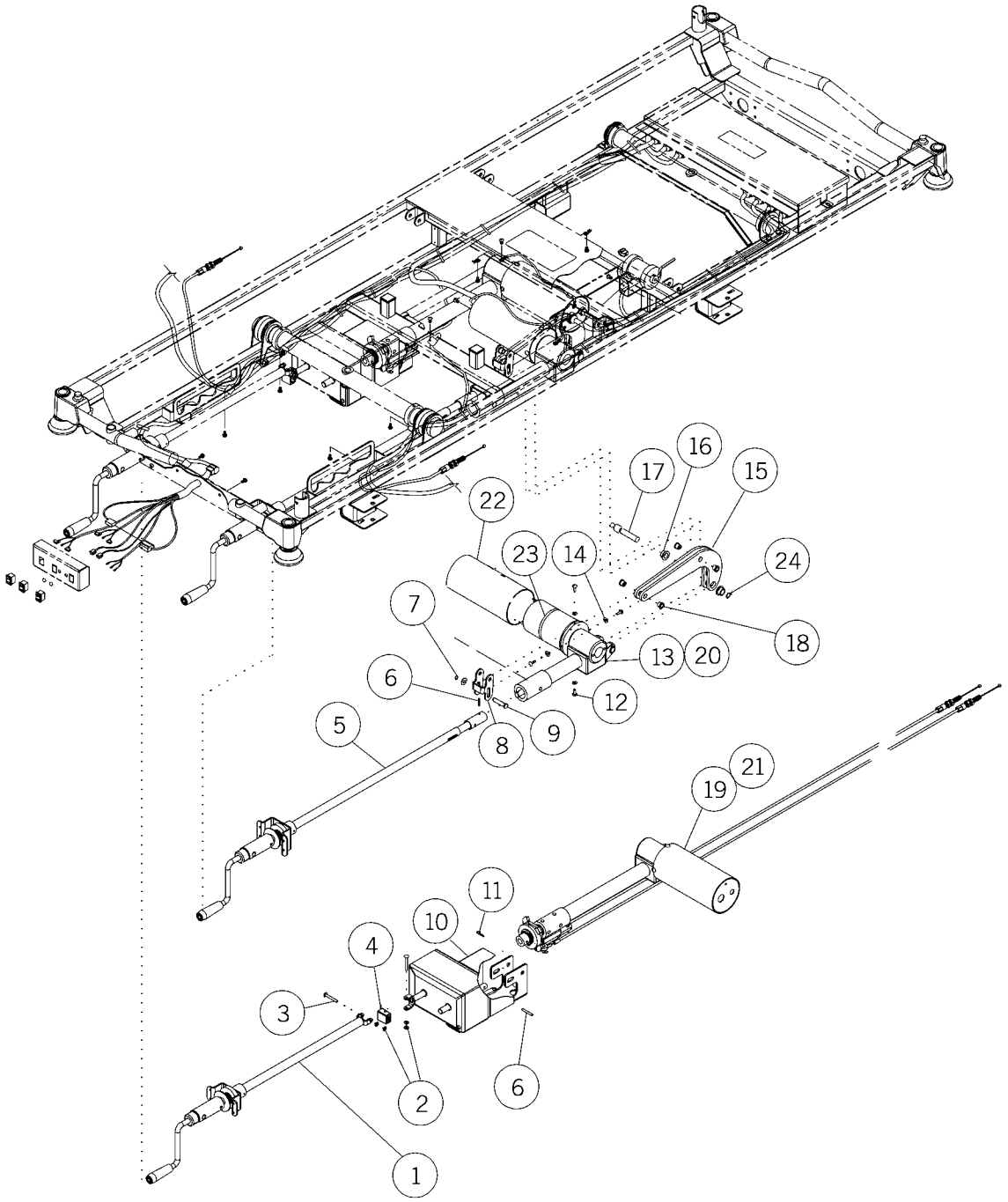
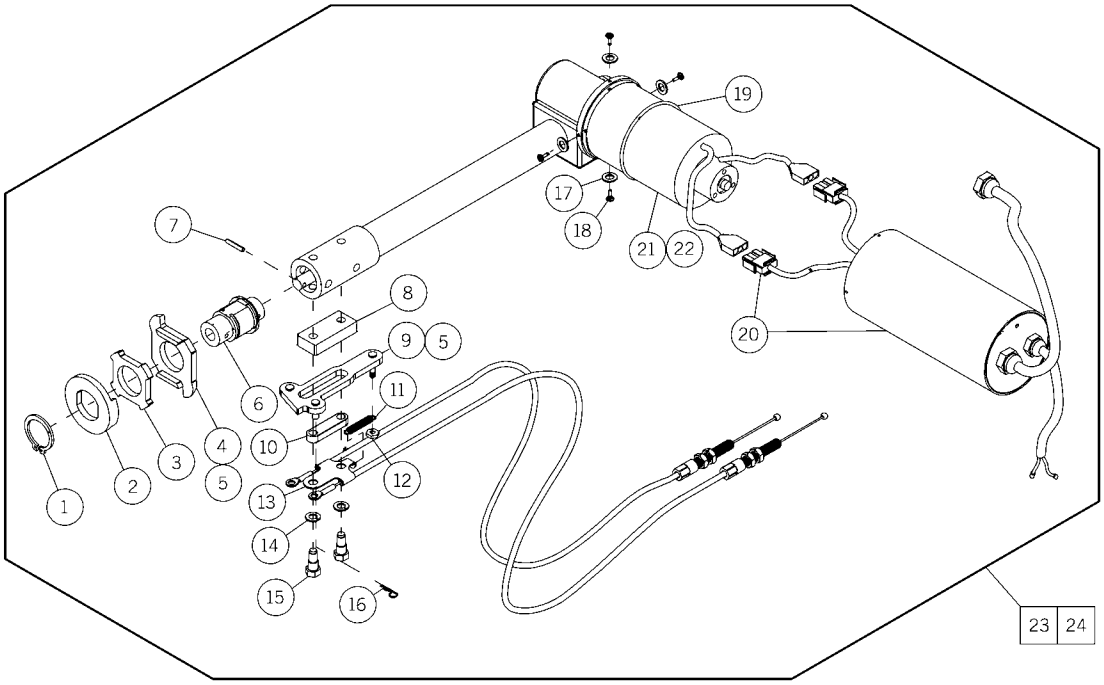


Table 5-26. Electric Stretcher Head and Knee Drive Assembly

Item Number	Part Number	Quantity	Description
1	4639002 (8000)	1	Back crank assembly
2	17291 (8000)	2	Push nut
3	24544 (8000)	2	Rivet
4	24549 (8000)	1	Universal joint
5	4639001 (8000)	1	Knee crank assembly, electric
6	35373 (8000)	3	Roll pin
7	43059 (8000)	1	Retaining ring
8	48618pl (8000)	1	Foot drive short linkage
9	49996pl (8000)	1	Headed pin
10	49055 (8000)	1	Gear box assembly
11	44352 (8000)	1	Hairpin
12	9007306 (8000)	4	Screw, phillips pan head
13	4966901 (8000)	1	Actuator assembly, knee drive 120V AC
14	41667 (8000)	8	Washer
15	4903748 (8000)	1	Dogleg weldment
16	49995 (8000)	2	Bushing, bronze
17	49043 (8000)	2	Actuator mounting pin
18	49994 (8000)	6	Bushing, bronze
19	4964901 (8000)	1	Head drive assembly 120V AC
20	4966902 (8000)	1	Actuator assembly, knee drive (230V AC)
21	4964902 (8000)	1	Head drive assembly (230V AC)
22	61181 (8000)	1	Knee drive cable assembly
23	60585 (8000)	1	O-ring
24	49081 (8000)	1	Retaining ring

Electric Stretcher Head Drive/CPR Assemblies

Figure 5-28. Electric Stretcher Head Drive/CPR Assemblies



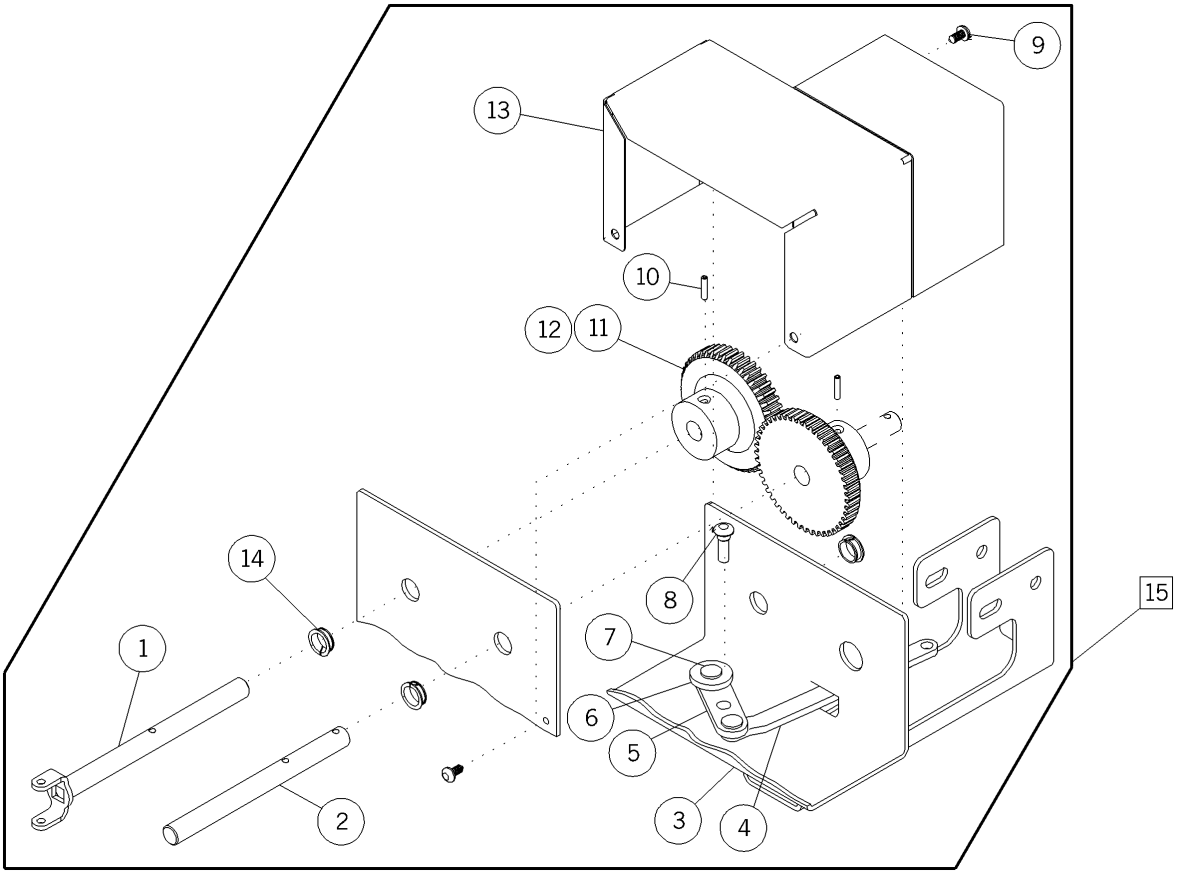
m115e111

Table 5-27. Electric Stretcher Head Drive/CPR Assemblies

Item Number	Part Number	Quantity	Description
1	34326 (8000)	1	Retaining ring
2	33611 (8000)	1	Hub
3	33613 (8000)	1	Lock pad
4	41142 (8000)	1	Lock hub
5	SA3351 (8000)	As required	4 oz. lithium grease
6	48611pl (8000)	1	CPR release adapter
7	1963601 (8000)	1	Roll pin
8	48610pl (8000)	1	Release spacer, main bushing
9	49993 (8000)	1	Latch assembly
10	33835 (8000)	1	Latch guide
11	60406 (8000)	1	Spring
12	33680H (8000)	1	Self-locking nut
13	49015 (8000)	1	Release cable assembly
14	25204 (8000)	2	Lockwasher
15	9014420 (8000)	2	Bolt
16	44352 (8000)	1	Hai pin
17	41667 (8000)	4	Washer
18	9007306 (8000)	4	Pan head machine screw
19	60585 (8000)	1	O-ring
20	61179 (8000)	1	Head drive cable assembly
21	4966801 (8000)	1	Actuator assembly, head (120V AC)
22	4966802 (8000)	1	Actuator assembly, head (230V AC)
23	4964901 (8000)	1	Head drive assembly (120V AC)
24	4964902 (8000)	1	Head drive assembly (230V AC)

Electric Stretcher Gearbox Assembly

Figure 5-29. Electric Stretcher Gearbox Assembly



m115b118

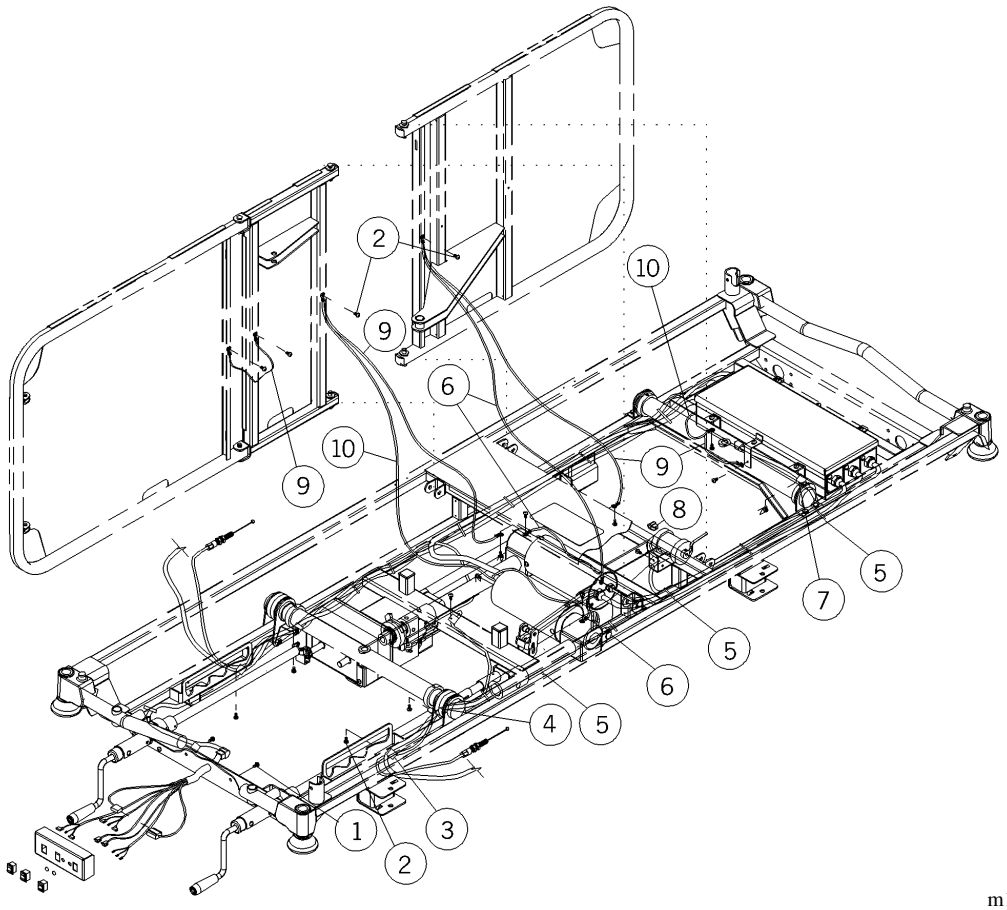
Table 5-28. Electric Stretcher Gearbox Assembly

Item Number	Part Number	Quantity	Description
1	49087pl (8000)	1	Gear shaft weldment
2	49058pl (8000)	1	Gear shaft, actuator
3	49052 (8000)	1	Gear box weldment
4	49066 (8000)	1	Kickout arm, CPR gearbox
5	49067 (8000)	1	Lever arm, CPR gearbox
6	49068 (8000)	1	Roller, lever arm
7	49053 (8000)	2	Rivet, gear box
8	48645 (8000)	1	Shoulder bolt latch
9	43878 (8000)	2	Screw, Torx®[a] button head
10	1963601 (8000)	2	Roll pin
11	SA3351 (8000)	As required	4 oz. lithium grease
12	49640 (8000)	2	Gear
13	49056 (8000)	1	Cover weldment
14	4649101 (8000)	3	Split bushing
15	49055 (8000)	1	Gear box assembly

a. Torx® is a registered trademark of Textron, Inc.

Electric Stretcher Cable/Wire Routing With Bolt-on Electric Box

Figure 5-30. Electric Stretcher Cable/Wire Routing With Bolt-on Electric Box



m115b109

Table 5-29. Electric Stretcher Cable/Wire Routing With Bolt-on Electric Box

Item Number	Part Number	Quantity	Description
1	43879 (8000)	2	Screw, Torx®[a] button head
2	43878 (8000)	20	Screw, Torx® button head
3	4966701 (8000)	2	Cable clamp
4	4966702 (8000)	2	Cable clamp
5	49936 (8000)	13	Self-mounting wire tie
6	3924001 (8000)	3	Ground strap
7	17292 (8000)	4	Cable clamp
8	4964302 (8000)	1	Ninety degree strain relief
9	3924006 (8000)	4	Ground strap assembly
10	3924008 (8000)	2	Ground strap assembly

a. Torx® is a registered trademark of Textron, Inc.

Electric Stretcher Cable/Wire Routing With Welded-on Electric Box

Figure 5-31. Electric Stretcher Cable/Wire Routing With Welded-on Electric Box

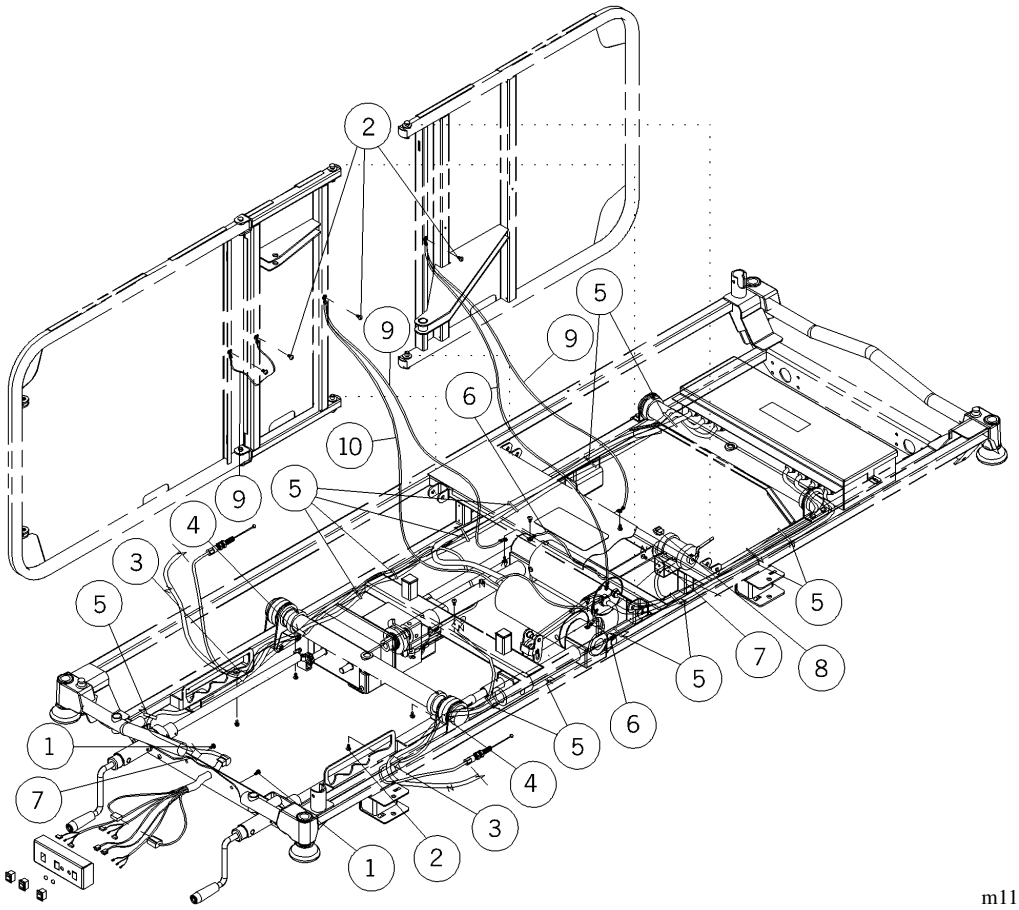


Table 5-30. Electric Stretcher Cable/Wire Routing With Welded-on Electric Box

Item Number	Part Number	Quantity	Description
1	43879 (8000)	2	Screw, Torx®[a] button head
2	43878 (8000)	13	Screw, Torx® button head
3	4966701 (8000)	2	Cable clamp, 7/16"
4	4966702 (8000)	2	Cable clamp, 5/8"
5	49936 (8000)	13	Self-mounting wire tie
6	3924001 (8000)	3	Ground strap
7	17292 (8000)	3	Cable clamp
8	4964302 (8000)	1	Ninety degree strain relief
9	3924006 (8000)	3	Ground strap assembly, 6½"
10	3924008 (8000)	1	Ground strap assembly, 9"

a. Torx® is a registered trademark of Textron, Inc.

Electric Stretcher Cable/Wire Assemblies With Bolt-on Electric Box

Figure 5-32. Electric Stretcher Cable/Wire Assemblies With Bolt-on Electric Box

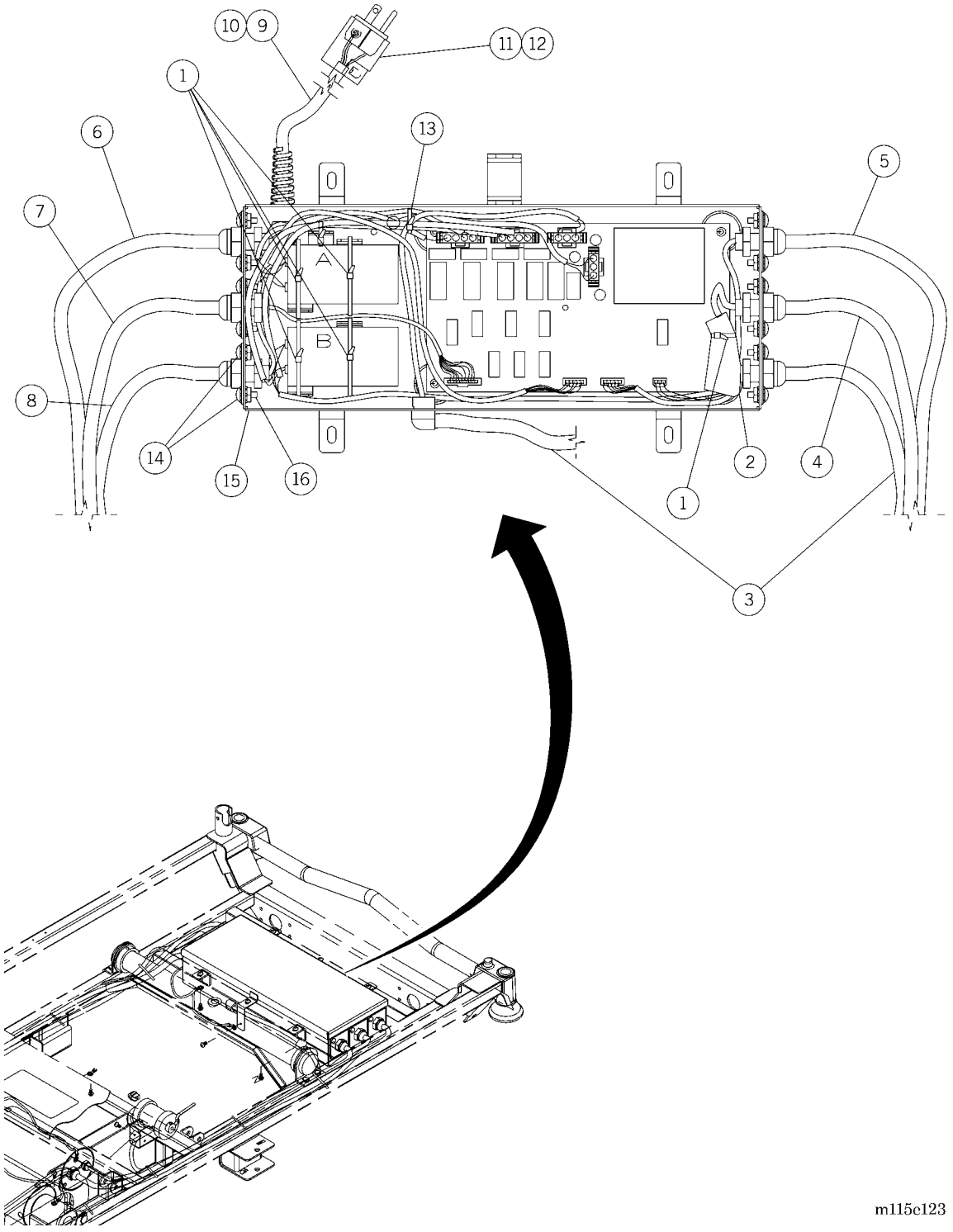


Table 5-31. Electric Stretcher Cable/Wire Assemblies With Bolt-on Electric Box

Item Number	Part Number	Quantity	Description
1	19124 (8000)	5	Large cable tie
2	9000212 (8000)	1	Tubing
3	49637 (8000)	1	Head drive cable assembly
4	49633 (8000)	1	Potentiometer cable assembly
5	61182 (8000)	1	Left siderail cable assembly
6	61180 (8000)	1	Right siderail cable assembly
7	49630 (8000)	1	Nurse control cable assembly
8	49639 (8000)	1	Knee drive cable assembly
9	4962001 (8000)	1	Power cord assembly (120V AC)
10	4962002 (8000)	1	Power cord assembly (230V AC)
11	38537 (8000)	1	Plug power cord (120V AC)
12	18829 (8000)	1	Plug (230V AC)
13	14450 (8000)	1	Small cable tie
14	15338 (8000)	12	Screw
15	23208 (8000)	24	Lockwasher
16	33680H (8000)	13	Self-locking nut

Electric Stretcher Cable/Wire Assemblies With Welded-on Electric Box

Figure 5-33. Electric Stretcher Cable/Wire Assemblies With Welded-on Electric Box

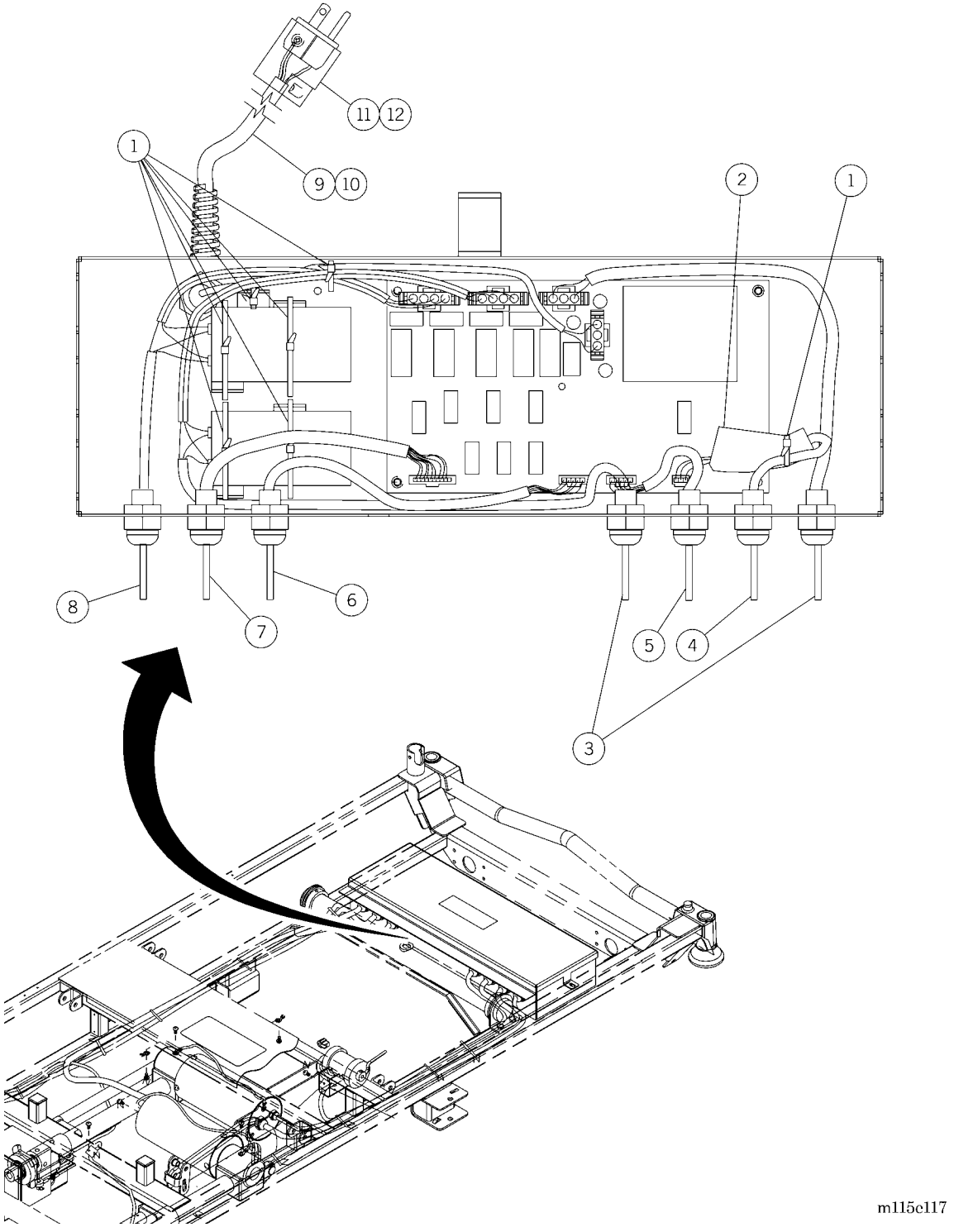
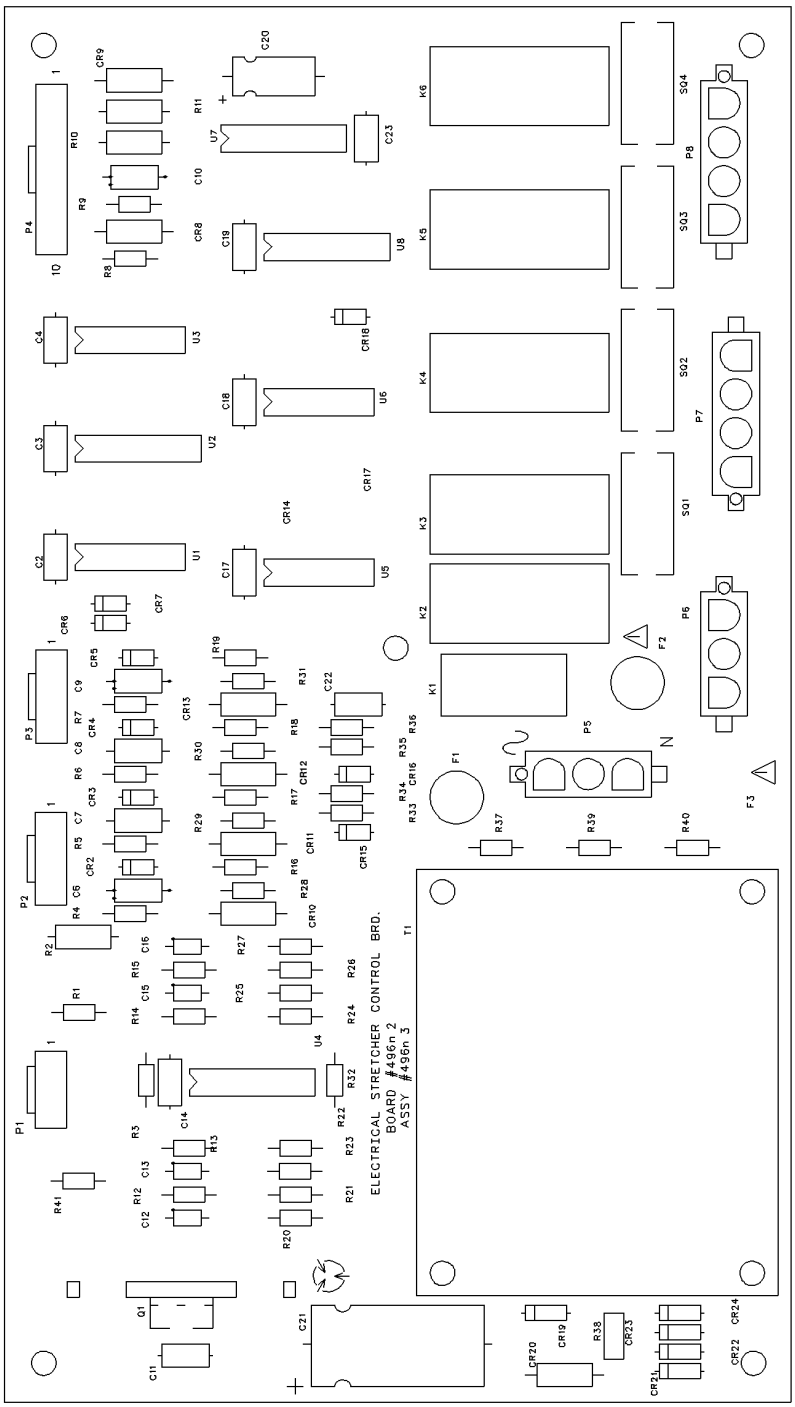


Table 5-32. Electric Stretcher Cable/Wire Assemblies With Welded-on Electric Box

Item Number	Part Number	Quantity	Description
1	19124 (8000)	9	Large cable tie
2	9000212 (8000)	1	Tubing
3	61179 (8000)	1	Head drive cable assembly
4	61183 (8000)	1	Potentiometer cable assembly
5	61182 (8000)	1	Left siderail cable assembly
6	61180 (8000)	1	Right siderail cable assembly
7	61185 (8000)	1	Nurse control cable assembly
8	61181 (8000)	1	Knee drive cable assembly
9	4962001 (8000)	1	Power cord assembly (120V AC)
10	4962002 (8000)	1	Power cord assembly (230V AC)
11	38537 (8000)	1	Plug power cord (120V AC)
12	18829 (8000)	1	Plug (230V AC)

Electric Stretcher Control Board Assembly (120V AC and 230V AC)

Figure 5-34. Electric Stretcher Control Board Assembly (120V AC and 230V AC)



m115a112

Table 5-33. Electric Stretcher Control Board Assembly (120V AC and 230V AC)

Component Symbol	Part Number	Description
C2 through C4, C11, C14, C17 through C19, C23	30109104K (8000)	Capacitor
C6 through C10	30109224K (8000)	Capacitor
C12, C13, C15, C16	30109471K (8000)	Capacitor
C20	30116 (8000)	Capacitor
C21	30122 (8000)	Capacitor
C22	30109334K (8000)	Capacitor
CR2 through CR7, CR14 through CR18	302014148B (8000)	Diode silicon
CR8 through CR13, CR20	30214180A (8000)	Tranzorb
CR19, CR21 through CR24	302014003B (8000)	Diode silicon
F1, F3	4471422 (8000)	Fuse (120V AC)
F1, F3	4471519 (8000)	Fuse (230V AC)
F2	4471408 (8000)	Fuse (120V AC)
F2	4471505 (8000)	Fuse (230V AC)
K1	30702 (8000)	Relay
K2 through K6	30702 (8000)	Relay
P1	4323104 (8000)	Header assembly vertical single row (connector)
P2, P3	4323105 (8000)	Five position amp connector
P4	4323110 (8000)	Connector
P5	4314503 (8000)	Connector
P6	4154302 (8000)	Connector
P7	4283504 (8000)	UMNL header
P8	4314504 (8000)	Connector
Q1	30314 (8000)	Regulator assembly
R1, R20, R21, R26, R27	30006103 (8000)	Resistor
R2	30007221 (8000)	Resistor
R3, R16 through R19, R36	30006104 (8000)	Resistor
R4 through R7, R9	30006274 (8000)	Resistor
R8, R28 through R31, R33	30006472 (8000)	Resistor
R10, R11	30007561 (8000)	Resistor

Component Symbol	Part Number	Description
R22	300191372B (8000)	Resistor
R23	300192801B (8000)	Resistor
R24	300199310 (8000)	Resistor
R25	300191621 (8000)	Resistor
R32	300196340 (8000)	Resistor
R34	30006474 (8000)	Resistor
R35	30006473 (8000)	Resistor
R37, R39, R40	30016 (8000)	Resistor
R38	4382103 (8000)	PTC
R41	30006105 (8000)	Resistor
SQ1 through SQ4	42819 (8000)	Capacitor
T1	30608 (8000)	Transformer
U1, U6	304004093B (8000)	Integrated circuit
U2, U8	304104049B (8000)	Integrated circuit
U3	304004081B (8000)	Integrated circuit
U4	30402LM339 (8000)	Integrated circuit
U5	304004071B (8000)	Integrated circuit
U7	304112004A (8000)	Integrated circuit

NOTES:

PC-300–PC-550 Procedural/Fixed Height/Trauma Stretcher Siderail Assembly

Figure 5-35. PC-300–PC-550 Procedural/Fixed Height/Trauma Stretcher Siderail Assembly

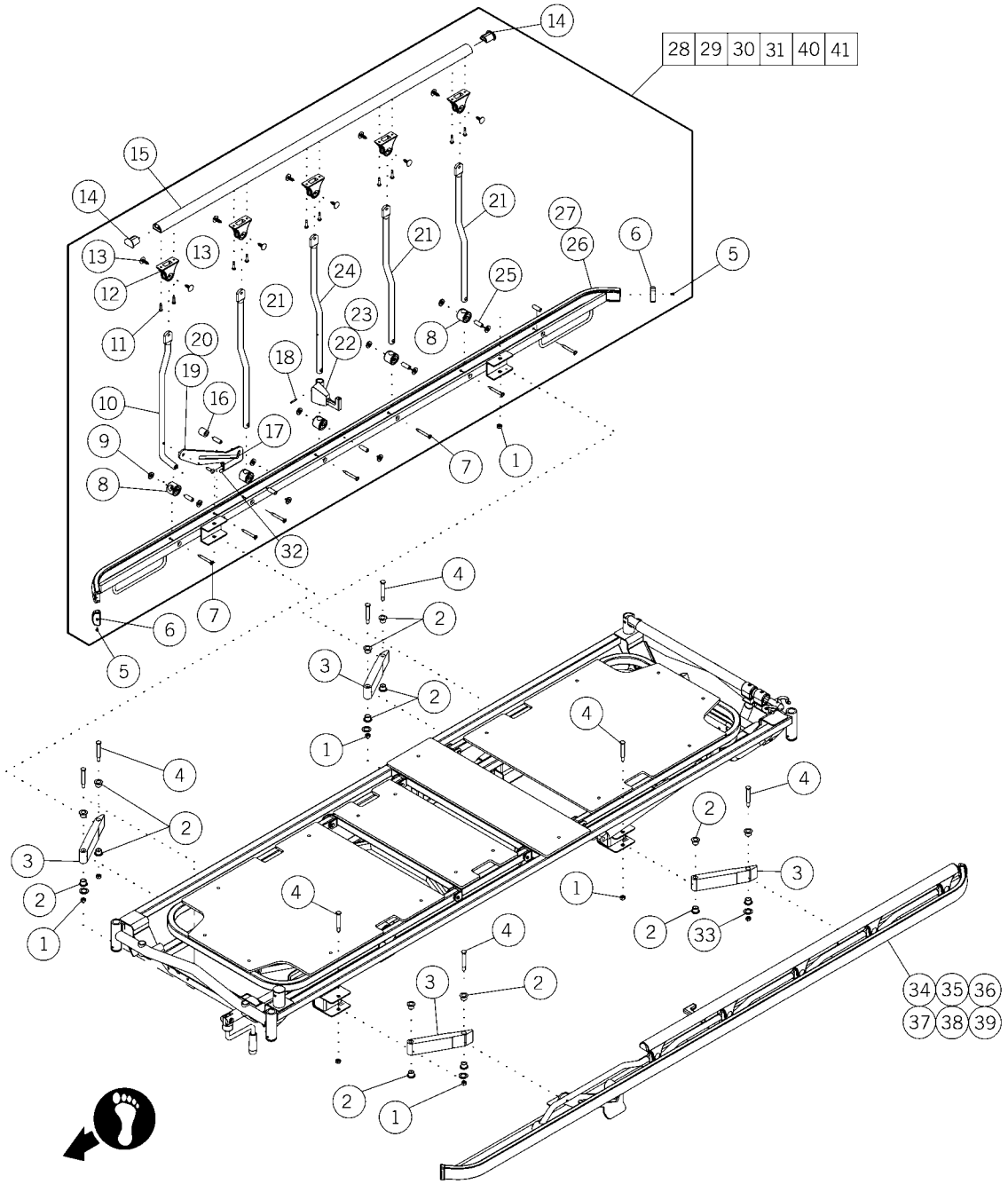


Table 5-34. PC-300–PC-550 Procedural/Fixed Height/Trauma Stretcher Siderail Assembly

Item Number	Part Number	Quantity	Description
1	831 (8000)	8	Locknut
2	36570 (8000)	16	Oilite®[a] bushing
3	4606248 (8000) 60957 (8000 Europe)	4	Siderail swing arm
4	36802pl (8000)	8	Pivot pin
5	46015 (8000) Not used on (8000 Europe)	4	Bottom rail end cap screw
6	46372 (8000) Not used on (8000 Europe)	2	Bottom rail end cap
7	46362 (8000)	7	Lower pivot bolt
8	46041 (8000)	5	Lower pivot block
9	46116 (8000)	10	Wave washer
10	46176pl (8000)	1	Siderail end tube
11	43879 (8000)	10	Screw, Torx®[b] button head
12	46106 (8000)	5	Upper pivot
13	4610302 (8000)	10	Top rail ratchet rivet
14	46371 (8000)	2	Top rail end cap
15	46066 (8000)	1	Top rail assembly
16	48643 (8000)	1	Latch bushing
17	48645 (8000)	1	Shoulder bolt latch
18	37275 (8000)	1	Roll pin
19	48640pl (8000)	1	Latch plate “A” (lh)
20	48641pl (8000)	1	Latch plate “B” (rh)
21	46043pl (8000)	3	Tube, siderail
22	46363 (8000)	1	Zero transfer stop “A” (lh)
23	46378 (8000)	1	Zero transfer stop “B” (rh)
24	46067pl (8000)	1	Siderail tube, transfer stop

a. Oilite® is a registered trademark of Beemer Precision, Inc.
b. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
25	46022pl (8000)	7	Roller guide
26	4617748 (8000) 60959 (8000 Europe)	1	Siderail welded assembly A
27	4617848 (8000) 60958 (8000 Europe)	1	Siderail welded assembly B
28	4617001S (8000) 6095601 (8000 Europe)	1	Left siderail with foot coverage
29	4617002S (8000) 6095602 (8000 Europe)	1	Right rail with foot coverage
30	4617003S (8000) 6095603 (8000 Europe)	1	Right rail with head coverage
31	4617004S (8000) 6095604 (8000 Europe)	1	Left rail with head coverage
32	4647501 (8000)	1	Label
33	35667 (8000)	8	Washer
34	4637001 (8000)	1	Trim strip—royal blue
35	4637002 (8000)	1	Trim strip—purple
36	4637003 (8000)	1	Trim strip—teal
37	4637004 (8000)	1	Trim strip—green
38	4637005 (8000)	1	Trim strip—red
39	4637006 (8000)	1	Trim strip—gray
40	66751 (8000)	1	KX1 siderail, patient right
41	66745 (8000)	1	KX1 siderail, patient left

NOTES:

Surgical Stretcher Siderail Assembly

Figure 5-36. Surgical Stretcher Siderail Assembly

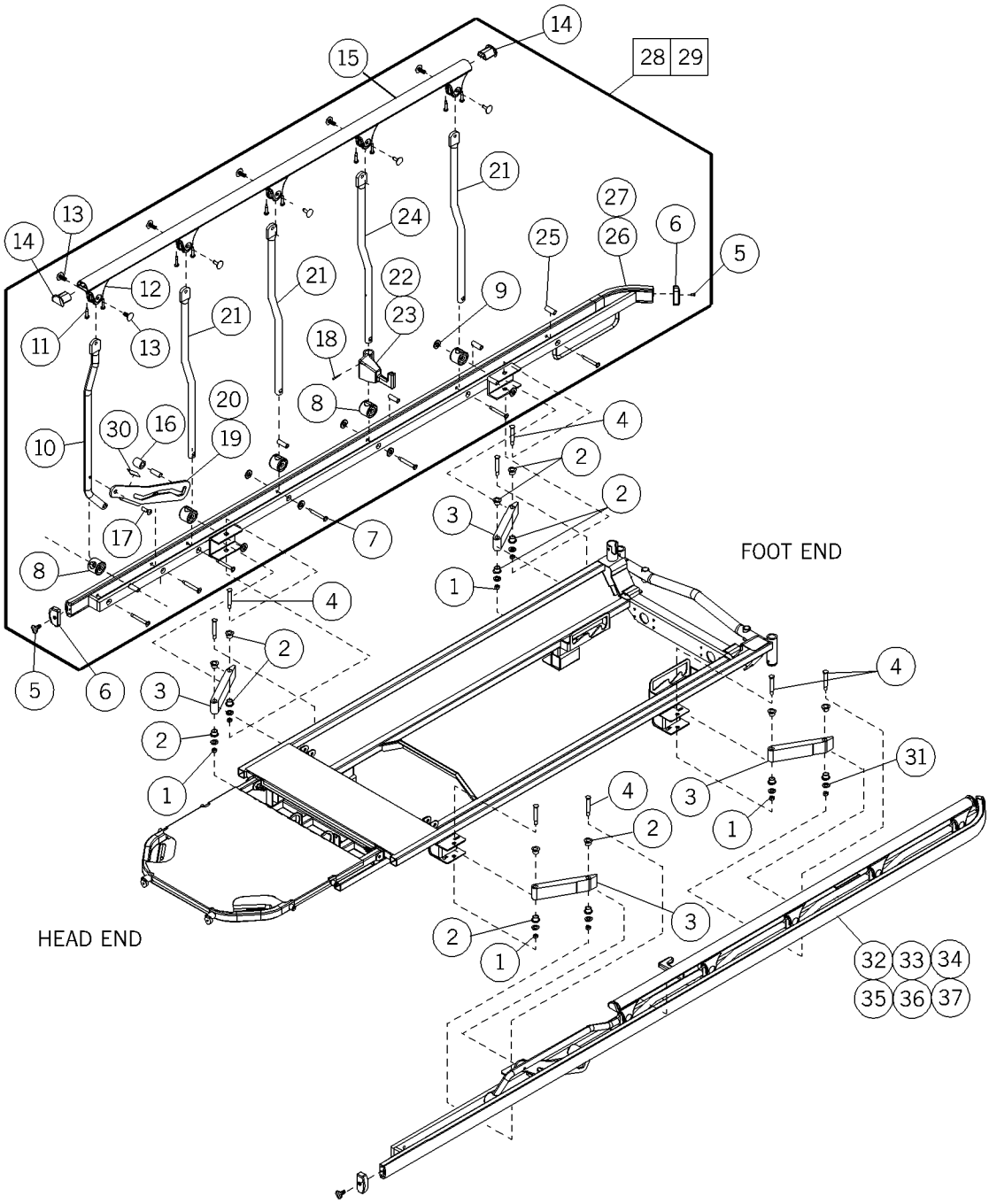


Table 5-35. Surgical Stretcher Siderail Assembly

Item Number	Part Number	Quantity	Description
1	831 (8000)	8	Locknut, triple center
2	36570 (8000)	16	Oilite®[a] bushing
3	4606248 (8000)	4	Siderail swing arm
4	36802pl (8000)	8	Pivot pin
5	46015 (8000)	4	Bottom rail end cap screw
6	46372 (8000)	2	Bottom rail end cap
7	46362 (8000)	7	Lower pivot bolt
8	46041 (8000)	5	Lower pivot block
9	46116 (8000)	8	Wave washer
10	46176pl (8000)	1	Siderail end tube
11	43879 (8000)	10	Screw, Torx®[b] button head
12	46106 (8000)	5	Upper pivot
13	4610302 (8000)	10	Top rail ratchet rivet
14	46371 (8000)	2	Top rail end cap
15	46066 (8000)	1	Top rail assembly
16	48643 (8000)	1	Latch bushing
17	48645 (8000)	1	Shoulder bolt latch
18	37275 (8000)	1	Roll pin
19	48640pl (8000)	1	Latch plate “A” (lh)
20	48641pl (8000)	1	Latch plate “B” (rh)
21	46043pl (8000)	3	Tube, siderail
22	46363 (8000)	1	Zero transfer stop “A” (lh)
23	46378 (8000)	1	Zero transfer stop “B” (rh)
24	46067pl (8000)	1	Siderail tube, transfer stop
25	46022pl (8000)	7	Roller guide
26	49035 (8000)	1	Siderail welded assembly “A” (lh)
27	49039 (8000)	1	Siderail welded assembly “B” (rh)
28	4617005S (8000)	1	Right rail with head coverage

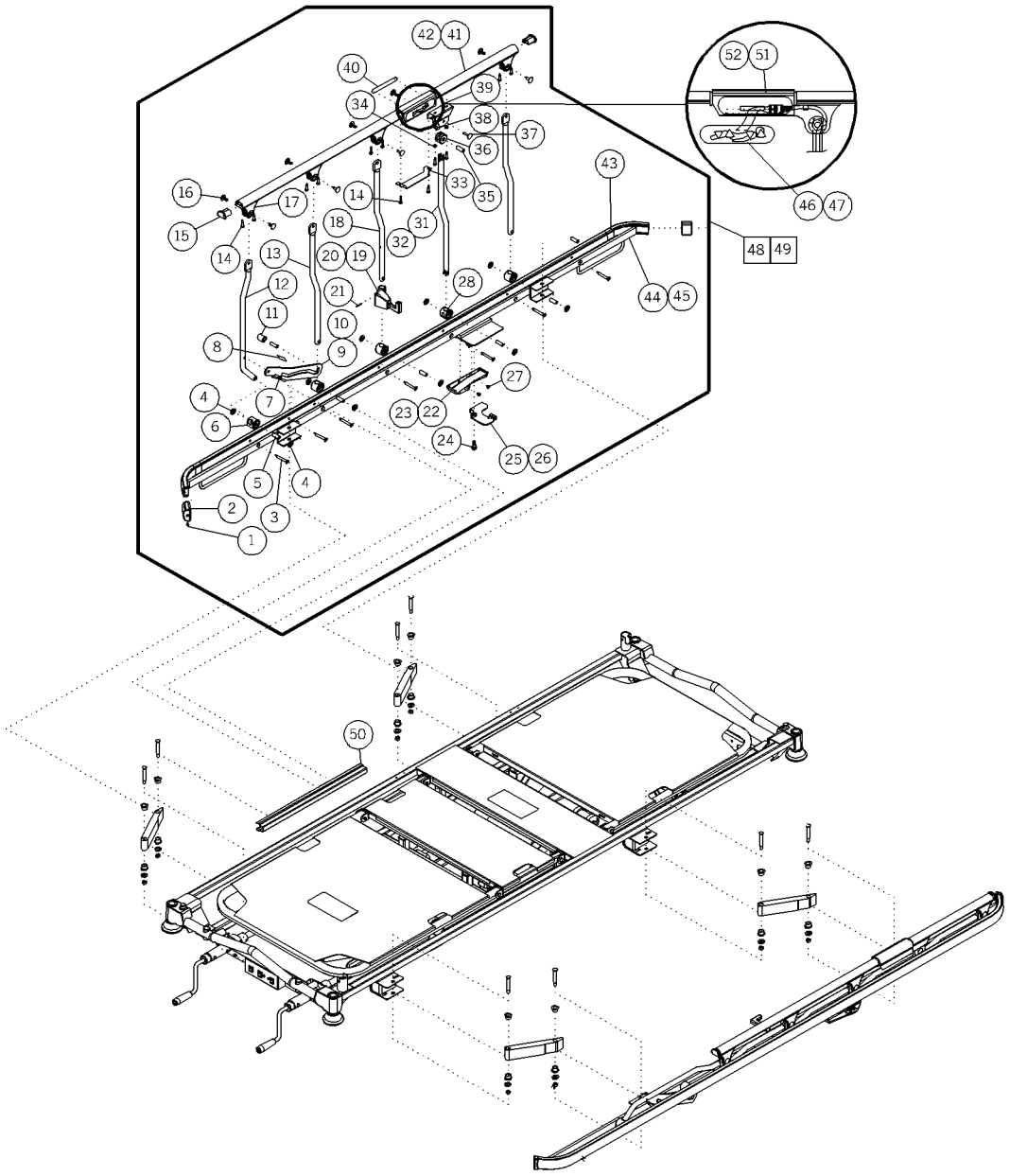
a. Oilite® is a registered trademark of Beemer Precision, Inc.
b. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
29	4617006S (8000)	1	Left rail with head coverage
30	4647501 (8000)	1	Label
31	35667 (8000)	8	Washer
32	4637001 (8000)	1	Trim strip—royal blue
33	4637002 (8000)	1	Trim strip—purple
34	4637003 (8000)	1	Trim strip—teal
35	4637004 (8000)	1	Trim strip—green
36	4637005 (8000)	1	Trim strip—red
37	4637006 (8000)	1	Trim strip—gray

NOTES:

Electric Stretcher Siderail Assembly

Figure 5-37. Electric Stretcher Siderail Assembly



m115b068

Table 5-36. Electric Stretcher Siderail Assembly

Item Number	Part Number	Quantity	Description
1	46015 (8000)	2	Bottom rail end cap screw
2	46372 (8000)	2	Bottom rail end cap
3	46362 (8000)	7	Lower pivot bolt
4	46116 (8000)	10	Wave washer
5	46022pl (8000)	7	Roller guide
6	46041 (8000)	4	Lower pivot block
7	48645 (8000)	1	Shoulder bolt latch
8	4647501 (8000)	1	Label
9	48640pl (8000)	1	Latch plate “A” (lh)
10	48641p1 (8000)	1	Latch plate “B” (rh)
11	48643 (8000)	1	Latch bushing
12	46176pl (8000)	1	Siderail end tube
13	46043pl (8000)	2	Tube, siderail
14	43879 (8000)	12	Screw, Torx®[a] button head
15	46371 (8000)	2	Top rail end cap
16	4610302 (8000)	8	Top rail ratchet rivet
17	46106 (8000)	4	Upper pivot
18	46067pl (8000)	1	Siderail tube, transfer stop
19	46363 (8000)	1	Zero transfer stop “A” (lh)
20	46378 (8000)	1	Zero transfer stop “B” (rh)
21	37275 (8000)	1	Roll pin
22	41285 (8000)	1	CPR handle, rh
23	41284 (8000)	1	CPR handle, lh
24	9025806 (8000)	1	Screw, hex socket head shoulder
25	4902601pl (8000)	1	CPR handle weldment, rh
26	4902602pl (8000)	1	CPR handle weldment, lh
27	9002804 (8000)	2	Screw
28	49005 (8000)	1	Electric rail lower pivot

a. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
29			
30			
31	61180 (8000)	1	Right siderail cable assembly
32	61182 (8000)	1	Left siderail cable assembly
33	4901048 (8000)	1	Patient control wire cover
34	49625 (8000)	2	Plastic washer
35	49006pl (8000)	1	Roller guide electric upper pivot
36	49009 (8000)	1	Electric rail upper pivot
37	4610302 (8000)	2	Latch ratchet rivet
38	27873 (8000)	1	Cable clamp
39	49097 (8000)	1	Upper pivot weldment
40	4901405 (8000)	1	Label
41	4901101 (8000)	1	Electric top rail assembly, rh
42	4901102 (8000)	1	Electric top rail assembly, lh
43	Reference only	As required	Tape, polypropylene
44	490240148 (8000)	1	Electric siderail weldment, rh
45	490240248 (8000)	1	Electric siderail weldment, lh
46	4962301 (8000)	1	Switch, membrane, 4 position, rh
47	4962302 (8000)	1	Switch, membrane, 4 position, lh
48	4901301 (8000)	1	Siderail assembly, rh
49	4901302 (8000)	1	Siderail assembly, lh
50	49644 (8000)	1	Wire cover snap bracket
51	4642501 (8000)	1	Patient control housing, rh
52	4642502 (8000)	1	Patient control housing, lh

NOTES:

OB/GYN Stretcher Siderail Assembly

Figure 5-38. OB/GYN Stretcher Siderail Assembly

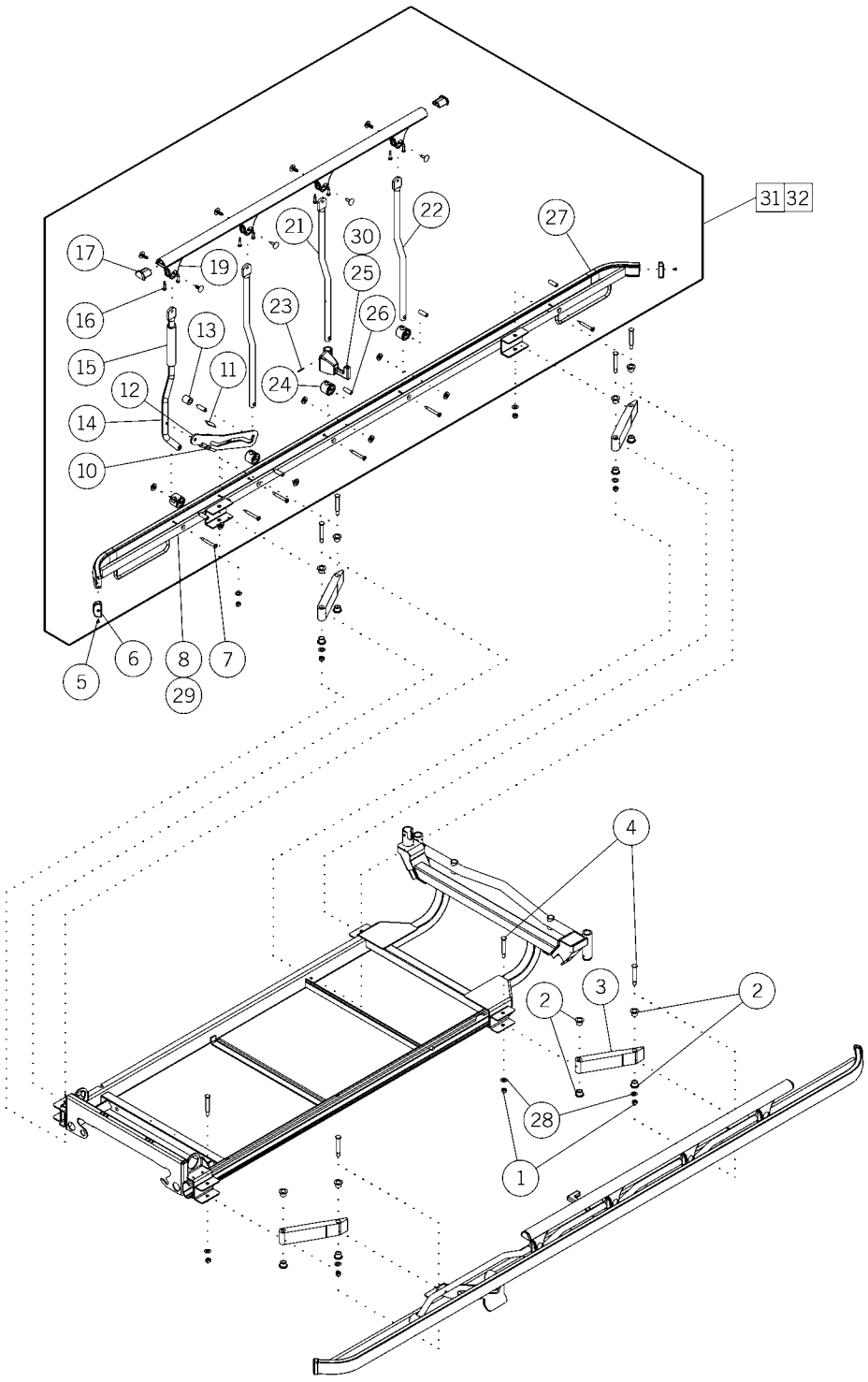


Table 5-37. OB/GYN Stretcher Siderail Assembly

Item Number	Part Number	Quantity	Description
1	2332 (8000)	8	Locknut, double center
2	36570 (8000)	16	Oilite®[a] bushing
3	4606248 (8000) 60957 (8000 Europe)	4	Siderail swing arm
4	36802pl (8000)	8	Pivot pin
5	46015 (8000)	2	Bottom rail end cap screw
6	46372 (8000)	2	Bottom rail end cap
7	46362 (8000)	6	Lower pivot bolt
8	6290701 (8000)	1	Siderail weldment rh
9	46116 (8000)	8	Wave washer
10	48645 (8000)	1	Shoulder bolt latch
11	4647501 (8000)	1	Labels
12	48641 (8000)	1	Latch plate “B” (rh)
13	48643 (8000)	1	Latch bushing
14	4617601 (8000)	1	Siderail tube, end
15	62911 (8000)	1	Siderail handgrip
16	43879 (8000)	8	Screw, Torx®[b] button head
17	46371 (8000)	2	Top rail end cap
18	4610302 (8000)	8	Top rail ratchet rivet
19	46106 (8000)	4	Upper pivot
20	46066 (8000)	1	Top rail assembly
21	46067pl (8000)	1	Siderail tube, transfer stop
22	46043pl (8000)	1	Tube, siderail
23	37275 (8000)	1	Roll pin
24	46041 (8000)	4	Lower pivot block
25	46363 (8000)	1	Zero transfer stop “A” (lh)
26	46022pl (8000)	6	Roller guide
27	Reference only	As required	Tape, polypropylene
28	35667 (8000)	8	Washer

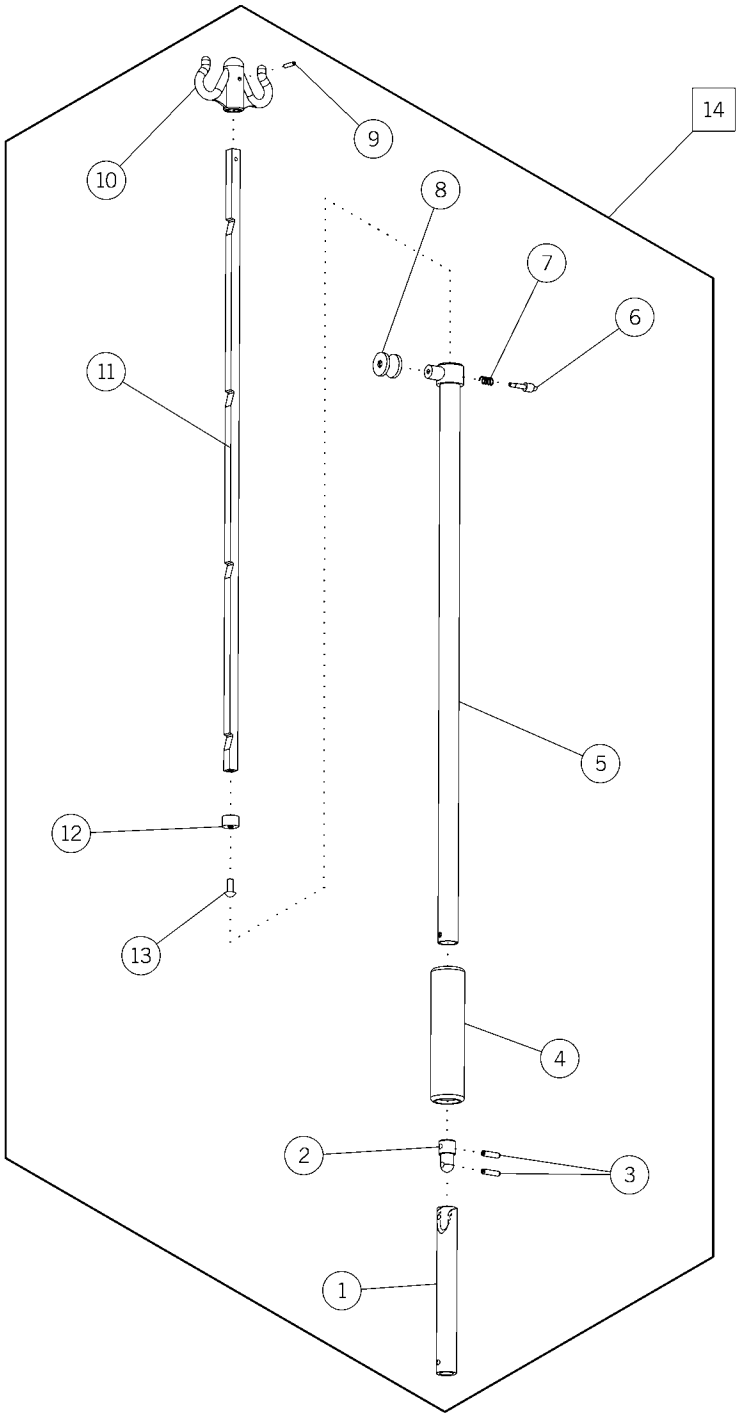
a. Oilite® is a registered trademark of Beemer Precision, Inc.
b. Torx® is a registered trademark of Textron, Inc.

Item Number	Part Number	Quantity	Description
29	6290702 (8000)	1	Siderail weldment, lh
30	46378 (8000)	1	Zero transfer stop “B” (rh)
31	6290501 (8000)	1	Siderail assembly lh
32	6290502 (8000)	1	Siderail assembly rh

NOTES:

PC-100/PC-200 Procedural Stretcher IV Pole Module

Figure 5-39. PC-100/PC-200 Procedural Stretcher IV Pole Module



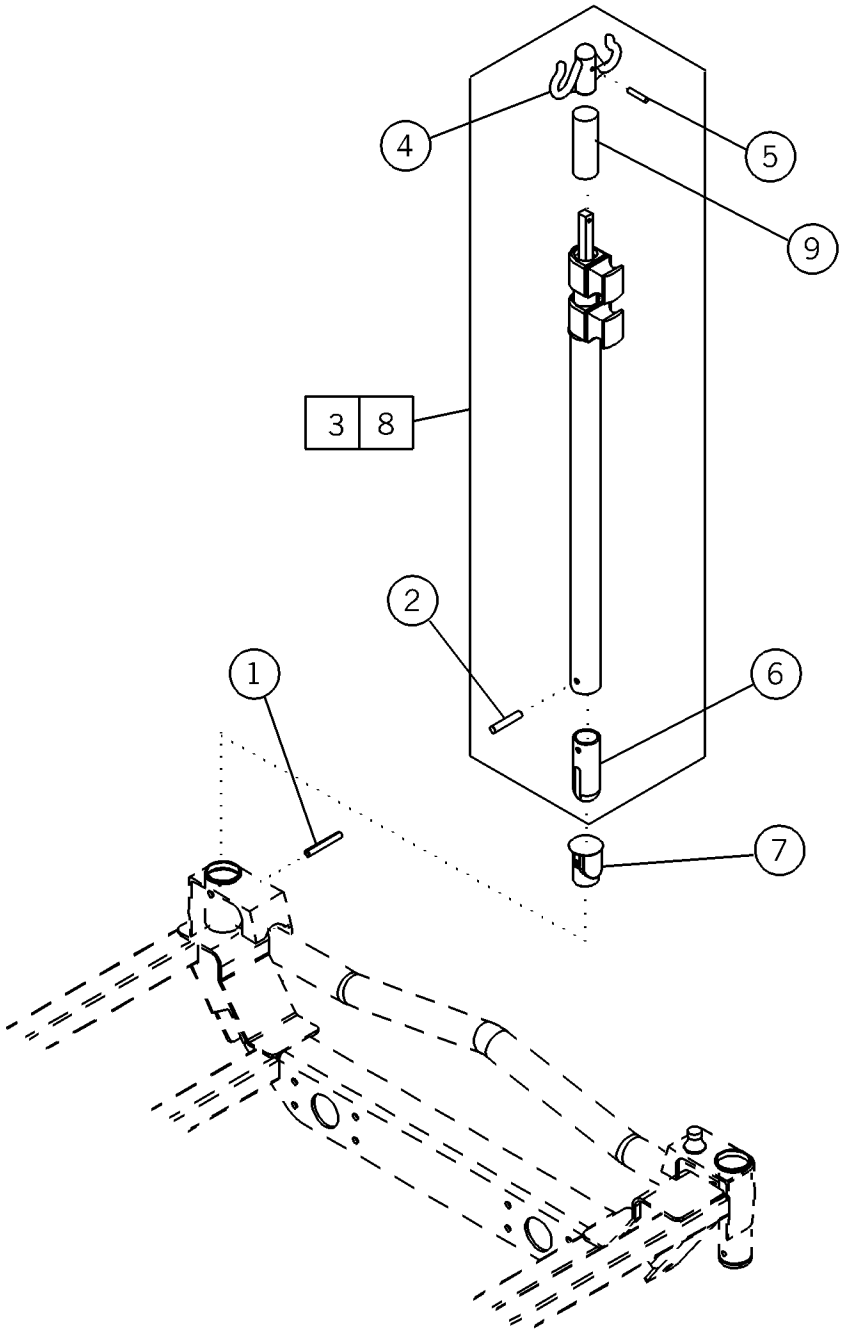
m115c233

Table 5-38. PC-100/PC-200 Procedural Stretcher IV Pole Module

Item Number	Part Number	Quantity	Description
1	65235 (8000)	1	Tube
2	65236 (8000)	1	Pin
3	9685 (8000)	2	Roll pin
4	65288 (8000)	1	Sleeve
5	65237 (8000)	1	Outer tube guide assembly
6	35775 (8000)	1	Stop pin
7	2374 (8000)	1	Lock spring
8	35776 (8000)	1	Stop pin knob
9	42469 (8000)	1	Roll pin
10	46398 (8000)	1	IV hook
11	65234 (8000)	1	Extension rod
12	32202 (8000)	1	Nylon guide
13	10866 (8000)	1	Screw
14	65238 (8000)	1	IV Pole Module

PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/OB/GYN/ Electric Stretcher IV Pole Module

Figure 5-40. PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/OB/GYN/ Electric Stretcher IV Pole Module



m115c168

Table 5-39. PC-300–PC-550 Procedural/Fixed Height/Trauma/Surgical/OB/GYN/ Electric Stretcher IV Pole Module

Item Number	Part Number	Quantity	Description
1	4604602 (8000)	1	Spring pin
2	42539 (8000)	1	Spiral pin
3	46151 (8000)	1	IV pole assembly
4	46398 (8000)	1	IV hook
5	42469 (8000)	1	Roll pin
6	46397pl (8000)	1	IV pole extension
7	46388 (8000)	1	IV socket plug
8	4615101 (8000)	1	IV pole assembly wide
9	48616 (8000)	1	IV pole wide spacer

Head/Footboard—P4120CT

Figure 5-41. Head/Footboard—P4120CT

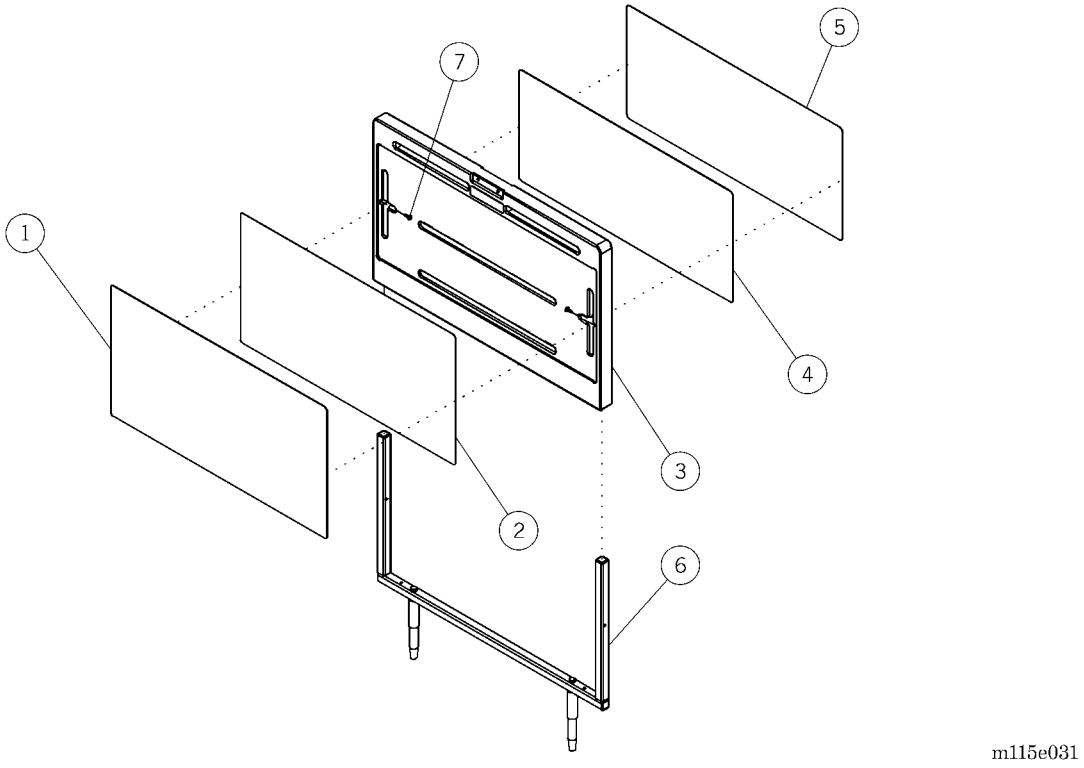


Table 5-40. Head/Footboard—P4120CT

Item Number	Part Number	Quantity	Description
1	39970 (8000)*	1	HPL fascia
2	39969 (8000)	As required	Adhesive tape
3	39047 (8000)	1	Table
4	39034 (8000)	As required	Adhesive tape
5	39033 (8000)*	1	HPL fascia
6	46495pl (8000)	1	Support frame welded assembly
7	4403 (8000)	2	Screw

* Specify high pressure laminate color.

NOTES:

Convertible Footboard—P350CT

Figure 5-42. Convertible Footboard—P350CT

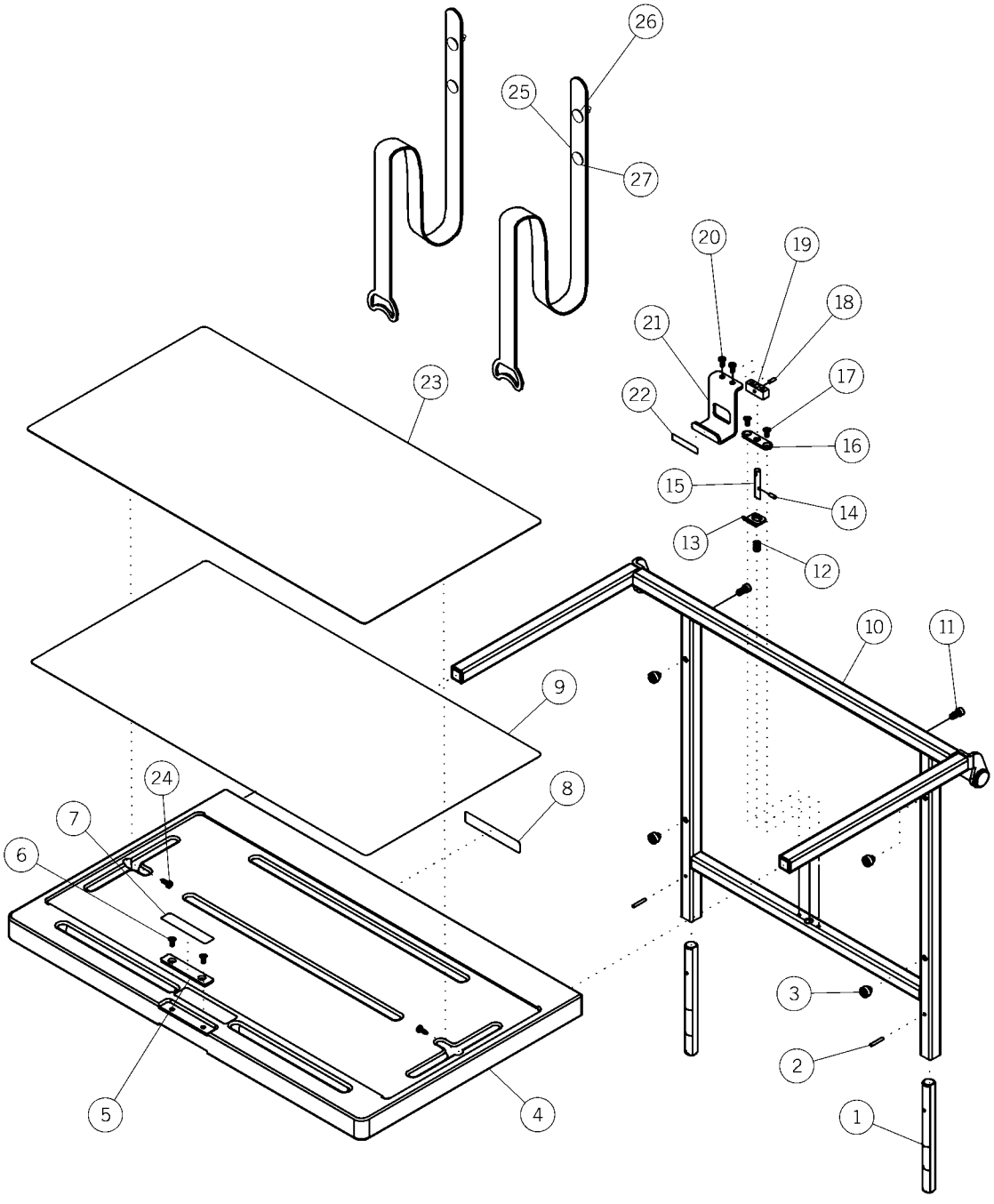


Table 5-41. Convertible Footboard—P350CT

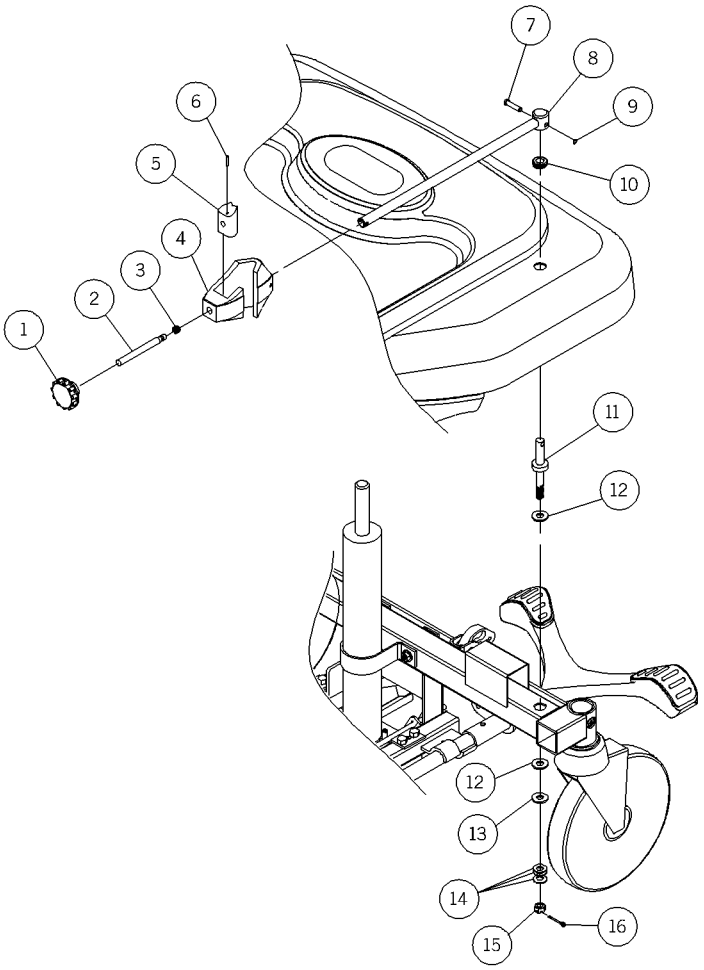
Item Number	Part Number	Quantity	Description
1	46114pl (8000)	2	Round post
2	10640 (8000)	2	Roll pin
3	37346 (8000)	4	Button
4	48624 (8000)	1	Table
5	37132pl (8000)	1	Latch plate
6	9004004 (8000)	2	Screw
7	4865102 (8000)	1	Label (“lift”)
8	36081 (8000)	1	Label, utility shelf caution
9	39034 (8000)	As required	Adhesive tape
10	4617348 (8000)	1	Assembly
11	3684248 (8000)	2	Levelizer bumper
12	37278 (8000)	1	Compression spring
13	37131 (8000)	1	Latch catch
14	38677 (8000)	1	Roll pin
15	38727 (8000)	1	Latch pin
16	38678 (8000)	1	Plate
17	27671 (8000)	2	Screw
18	38677 (8000)	1	Roll pin
19	38729 (8000)	1	Pin plate
20	17017 (8000)	2	Screw
21	38732 (8000)	1	Latch handle
22	4865101 (8000)	1	Label (“to release latch”)
23	39033 (8000)*	1	HPL fascia
24	43878 (8000)	2	Screw, Torx®[a] button head
25	37238 (8000)	2	Equipment strap
26	37290 (8000)	2	Snap, male
27	37291 (8000)	2	Snap, female

a. Torx® is a registered trademark of Textron, Inc.

* Specify high pressure laminate color.

IV Transporter—P491

Figure 5-43. IV Transporter—P491



m115d035

Table 5-42. IV Transporter—P491

Item Number	Part Number	Quantity	Description
1	48648 (8000)	1	Plastic knob
2	48649pl (8000)	1	Threaded post, knob
3	48652 (8000)	1	Threaded insert
4	48646 (8000)	1	Clamp housing
5	48647 (8000)	1	Notched block, clamp
6	37275 (8000)	1	Roll pin
7	4645404 (8000)	1	Headed pin, 1.313"
8	4615448 (8000)	1	Tow arm welded assembly
9	43059 (8000)	1	Retaining ring
10	46468 (8000)	1	Rubber grommet
11	46324pl (8000)	1	Tow bar post welded assembly
12	46385 (8000)	2	Oilite®[a] bushing
13	46387 (8000)	1	D-washer
14	46399 (8000)	3	Belleville washer
15	46469 (8000)	1	Locknut
16	43077 (8000)	1	Cotter pin

a. Oilite® is a registered trademark of Beemer Precision, Inc.

Liquid Oxygen Tank Holder—P273

Figure 5-44. Liquid Oxygen Tank Holder—P273

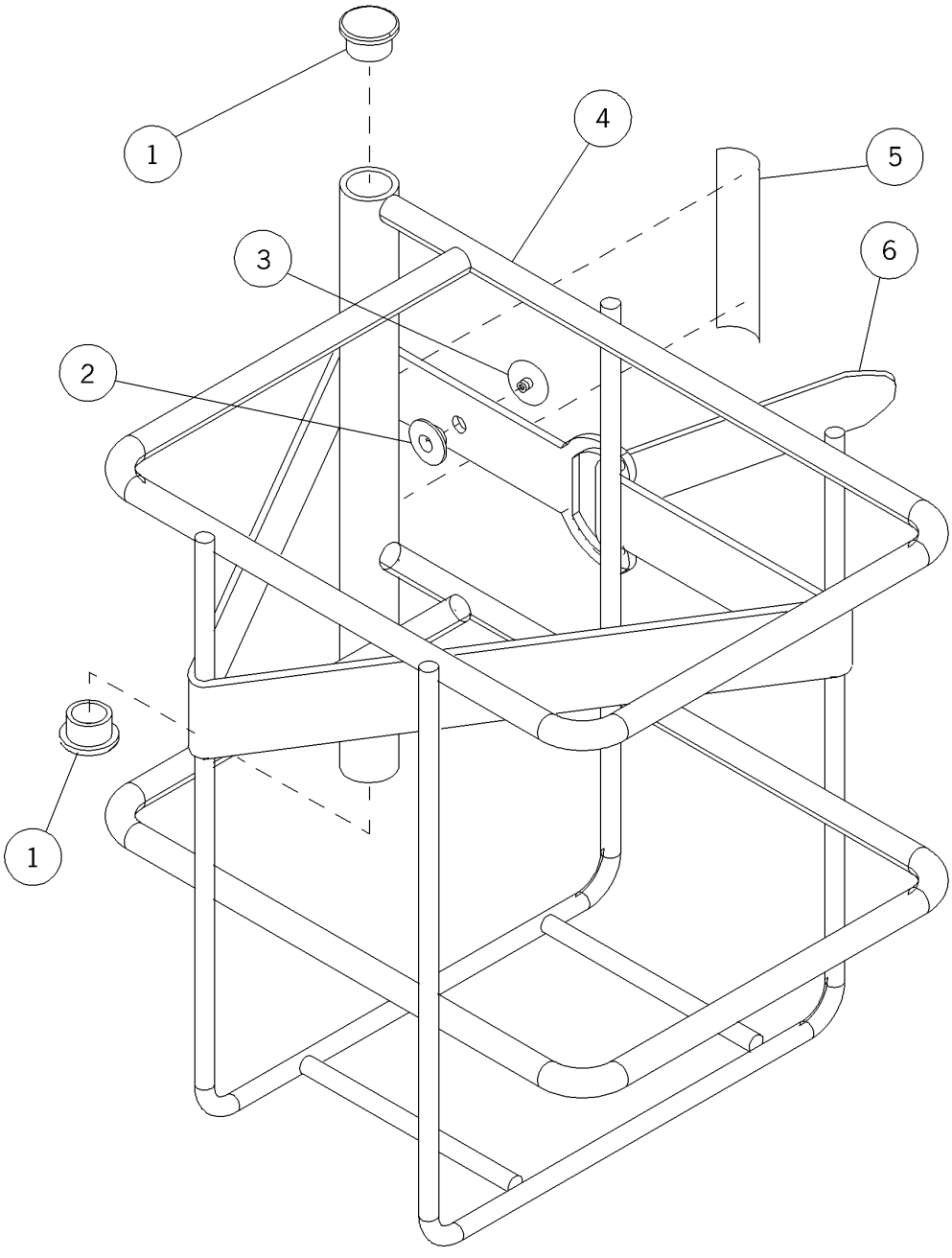


Table 5-43. Liquid Oxygen Tank Holder—P273

Item Number	Part Number	Quantity	Description
1	2945748 (8000)	2	Hole plug
2	37291 (8000)	1	Grommet, female
3	37290 (8000)	1	Grommet, male
4	6055148 (8000)	1	Liquid oxygen tank holder weldment
5	60550 (8000)	1	Label, product
6	37238 (8000)	1	Equipment strap

Oxygen Tank Holder—P276

Figure 5-45. Oxygen Tank Holder—P276

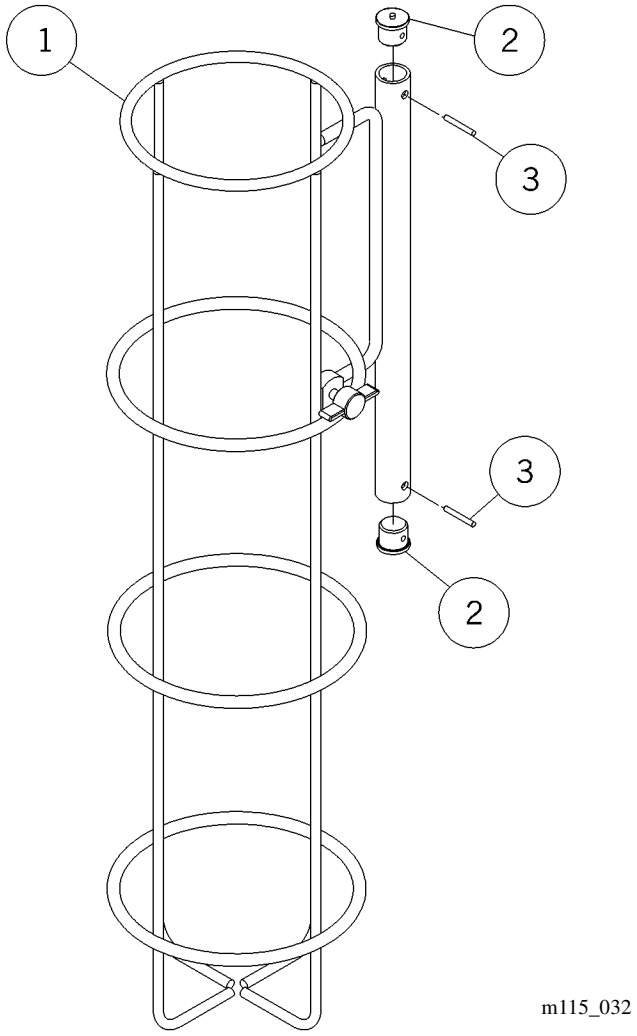
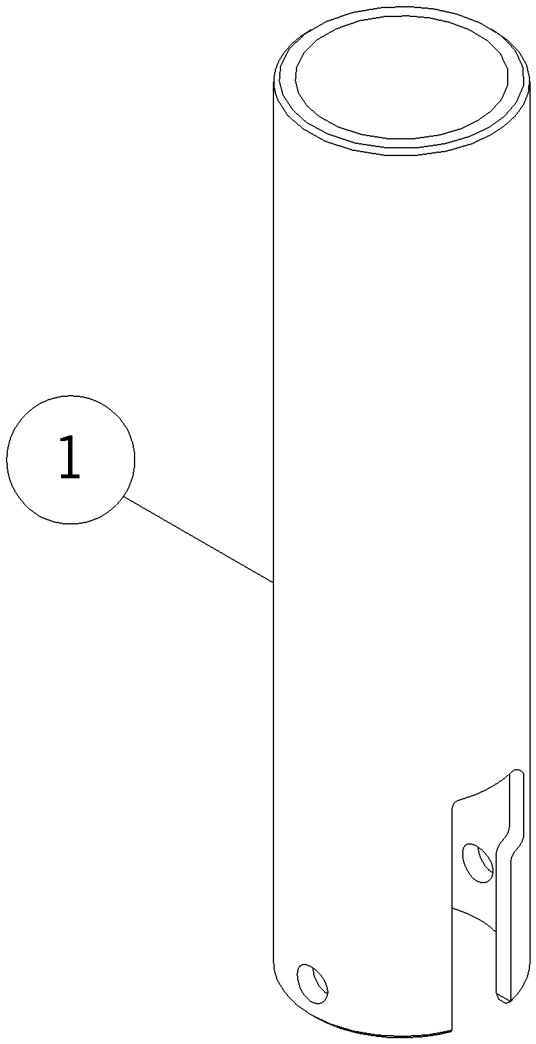


Table 5-44. Oxygen Tank Holder—P276

Item Number	Part Number	Quantity	Description
1	42703 (8000)	1	Oxygen tank holder
2	36339 (8000)	2	Tube end
3	9685 (8000)	2	Roll pin

ISS Socket Adapter—P163

Figure 5-46. ISS Socket Adapter—P163



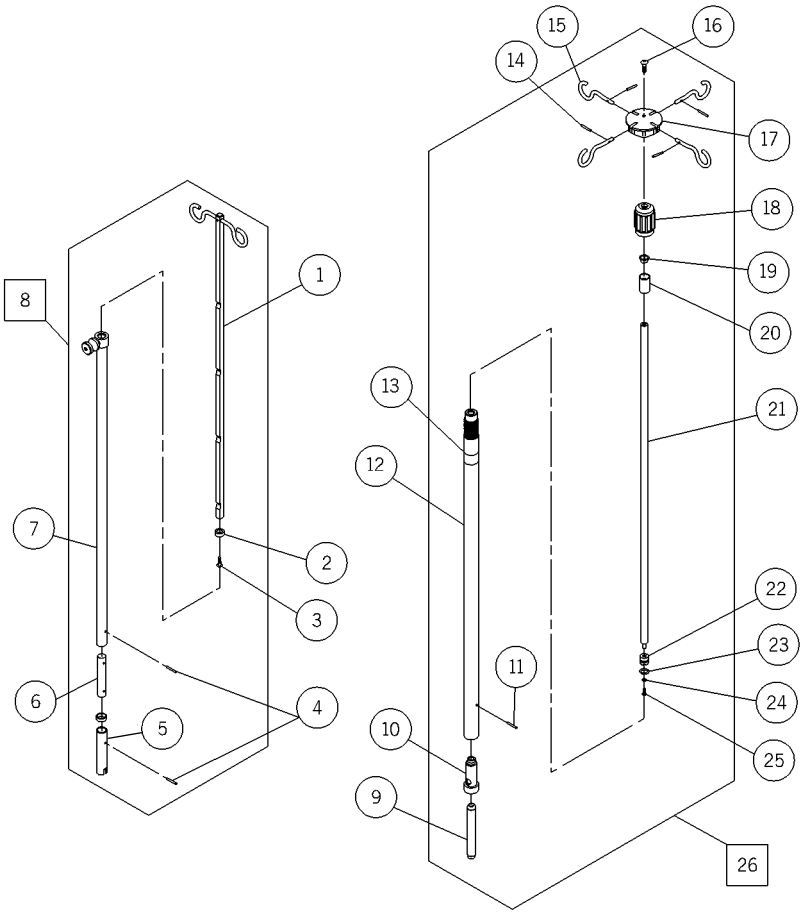
m115_038

Table 5-45. ISS Socket Adapter—P163

Item Number	Part Number	Quantity	Description
1	42518pl (8000)	1	Socket adapter

IV Pole—P2217 and ISS Transfer Pole—P158

Figure 5-47. IV Pole—P2217 and ISS Transfer Pole—P158



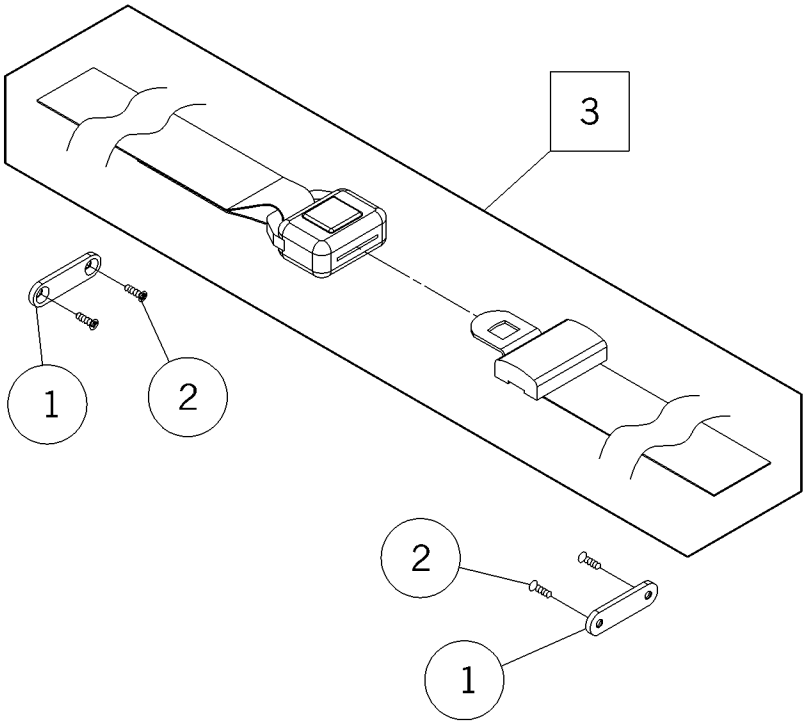
m115_039

Table 5-46. IV Pole—P2217 and ISS Transfer Pole—P158

Item Number	Part Number	Quantity	Description
1	32534 (8000)	1	Extension rod assembly
2	32202 (8000)	2	Nylon guide
3	10866 (8000)	1	Screw
4	10640 (8000)	2	Roll pin
5	32201 (8000)	1	Extension
6	20858 (8000)	1	Coupling
7	32199 (8000)	1	Outer tube assembly
8	2217 (8000)	1	IV pole
9	35005 (8000)	1	Locator
10	35022 (8000)	1	Inner insulator
11	35334 (8000)	2	Spring pin
12	35021 (8000)	1	Transfer pole
13	35044 (8000)	1	Label
14	35018 (8000)	4	Roll pin
15	35003 (8000)	4	IV hook
16	17290 (8000)	1	Screw
17	35001 (8000)	1	Hub
18	35002 (8000)	1	Collet
19	35007 (8000)	1	Ferrule complete
20	35004 (8000)	1	Insert
21	35026 (8000)	1	Telescoping tube
22	35020 (8000)	1	End cap
23	35019 (8000)	1	O-ring
24	864 (8000)	1	Washer
25	17232 (8000)	1	Screw
26	P158 (8000)	1	Transfer pole

Security Straps—P349

Figure 5-48. Security Straps—P349



m115_037

Table 5-47. Security Straps—P349

Item Number	Part Number	Quantity	Description
1	36979 (8000)	2	Security strap bracket
2	14995 (8000)	4	Screw
3	37090 (8000)	1	Security strap

NOTES:

Push Handles

Figure 5-49. Push Handles

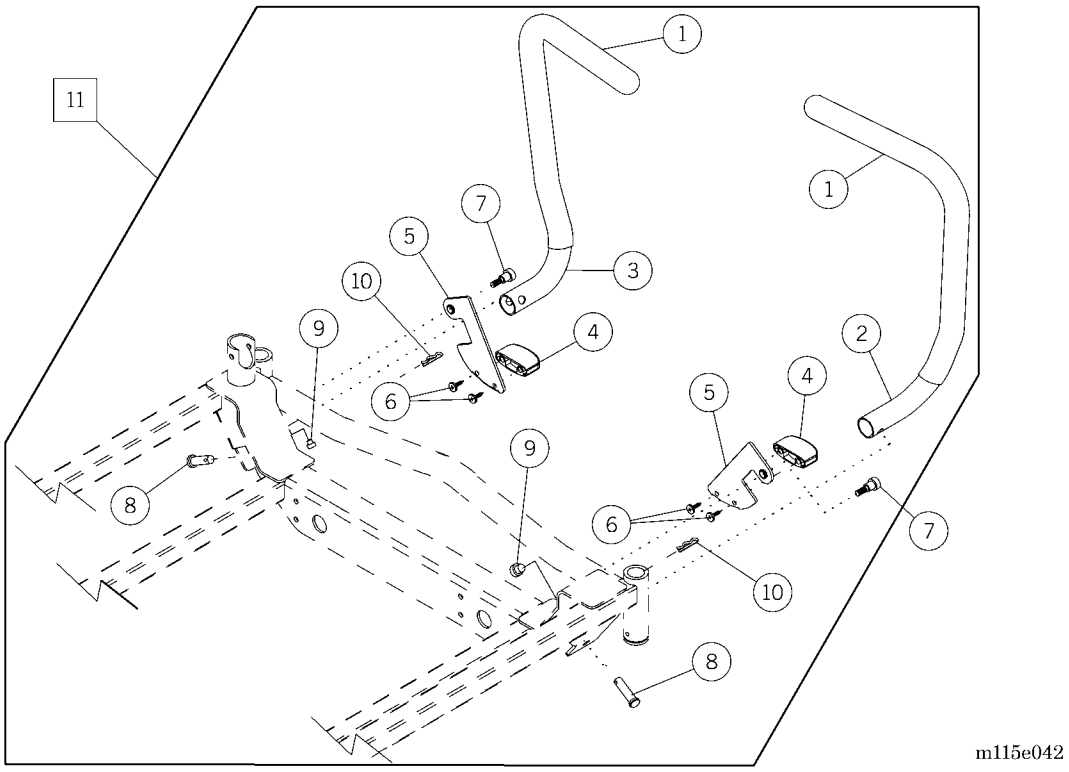


Table 5-48. Push Handles

Item Number	Part Number	Quantity	Description
1	46395 (8000)	2	Cover
2	46030pl (8000)	1	Left push handle tube
3	46028pl (8000)	1	Right push handle tube
4	46108 (8000)	2	Push handle release
5	66350pl (8000)	2	Push handle latch assembly
6	9712 (8000)	4	Screw
7	9025806 (8000)	2	Screw, hex socket head shoulder
8	60837 (8000) 9025921 (8000)	2 2	Clevis pin (used starting June, 1998) Screw, hex socket head shoulder (used prior to June, 1998)
9	46350 (8000)	2	Bumper
10	60839 (8000)	2	Hitch pin (used starting June, 1998)
11	46392s (8000)	1	Push handle assembly

Armboard—P344AT

Figure 5-50. Armboard—P344AT

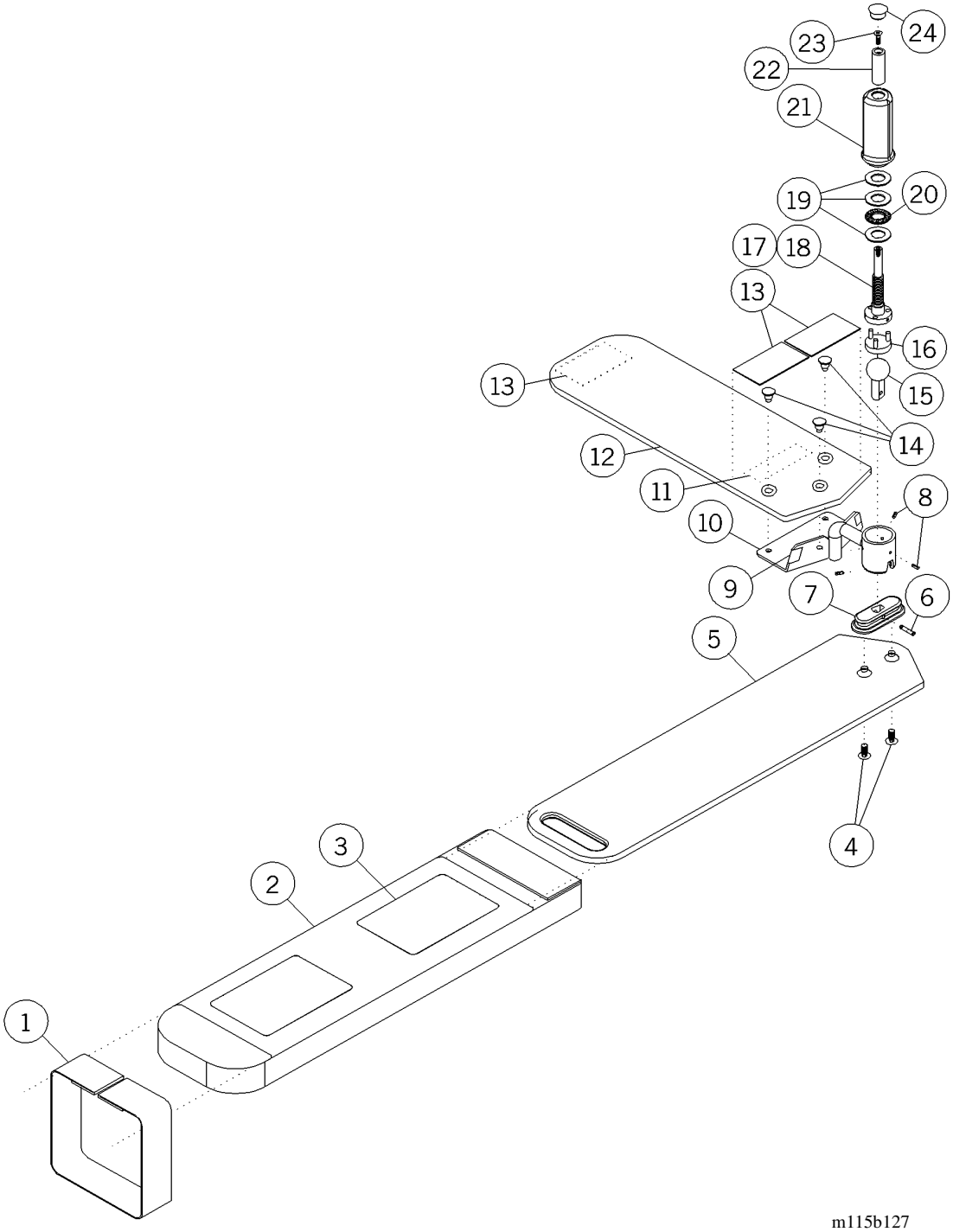


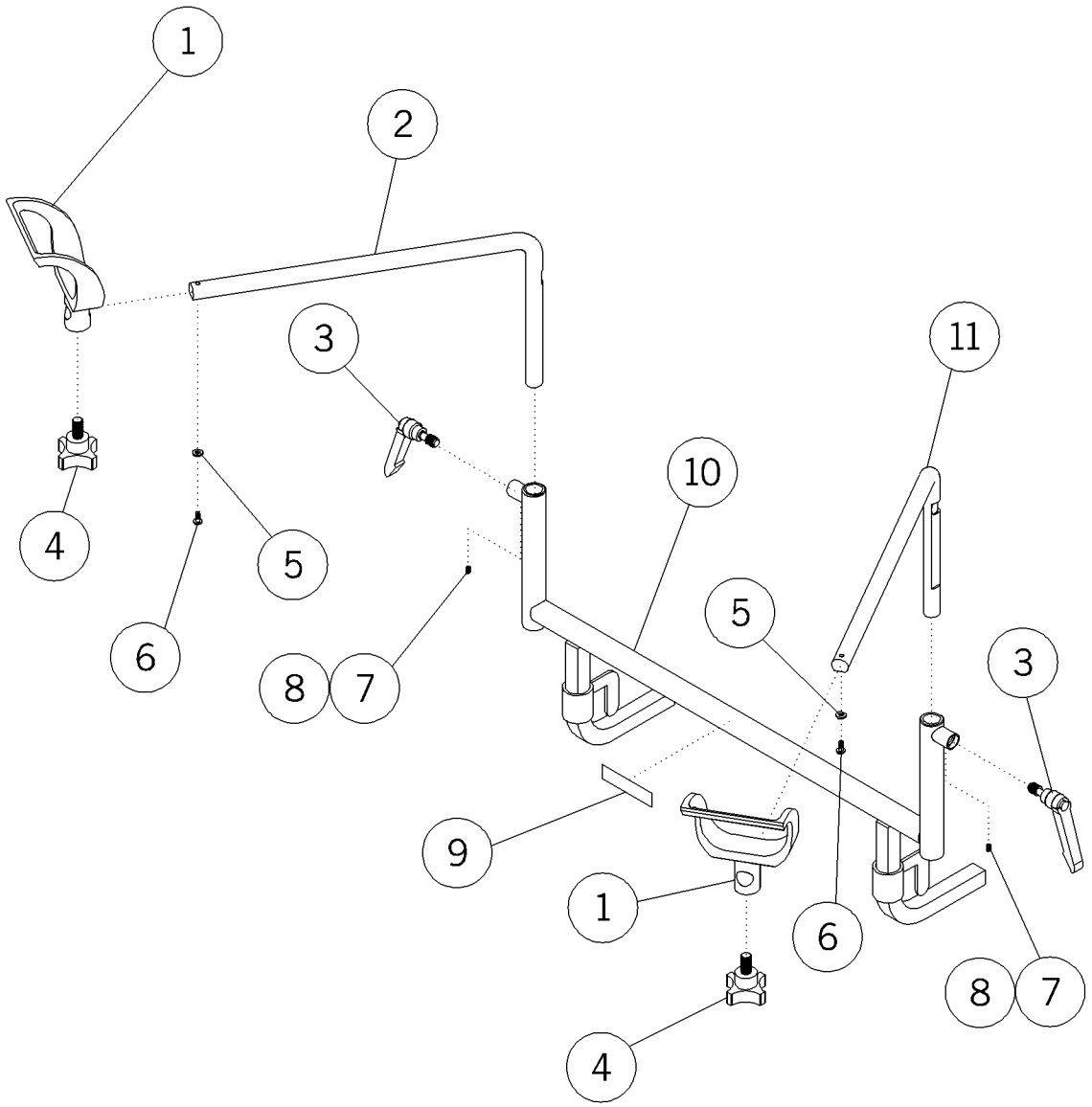
Table 5-49. Armboard—P344AT

Item Number	Part Number	Quantity	Description
1	60645 (8000)	1	Armboard restraint strap
2	37246 (8000)	1	Armrest pad
3	46334 (8000)	2	Mattress attachment Velcro®[a]
4	60653 (8000)	2	Hex socket
5	60516 (8000)	1	Upper panel
6	128 (8000)	1	Roll pin
7	41259 (8000)	1	Calf support bracket
8	41185 (8000)	3	Groove pin
9	46332 (8000)	1	Protective tape
10	60587 (8000)	1	Mounting weldment
11	60451 (8000)	1	Label, TranStar® armboard product
12	60517 (8000)	1	Lower panel
13	60647 (8000)	3	Non-skid pad
14	60595 (8000)	3	Mounting rivet
15	60962 (8000)	1	Ball and rod
16	SA1634 (8000)	1	Ball socket repair kit
17	60590pl (8000)	1	Shaft insert weldment
18	37929 (8000)	As required	Anti-seize
19	40741 (8000)	3	Thrust race
20	11578 (8000)	1	Thrust bearing
21	60661 (8000)	1	Armboard handle
22	60589pl (8000)	1	Armboard support tube
23	9005110 (8000)	1	Flat screw
24	38156 (8000)	1	Hole plug

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

Stirrup Assembly—P347AT

Figure 5-51. Stirrup Assembly—P347AT



m115c167

Table 5-50. Stirrup Assembly—P347AT

Item Number	Part Number	Quantity	Description
1	42079 (8000)	2	Stirrup
2	42056 (8000)	1	Right rod
3	42081 (8000)	2	Right handle assembly
4	41665 (8000)	2	Thumb knob
5	15244 (8000)	2	Fiber washer
6	9003706H (8000)	2	Screw
7	1215 (8000)	2	Allen™[a] screw
8	SA3618 (8000)	As required	Loctite®[b] (blue #242)
9	60749 (8000)	1	Product label
10	64732 (8000)	1	Stirrup weldment
11	42090 (8000)	1	Left rod

a. Allen™ is a trademark of Industrial Fasteners, Inc.
b. Loctite® is a registered trademark of Loctite Corporation.

Trauma Stretcher Upright Chest Assembly—P279AT (Old Style)

Figure 5-52. Trauma Stretcher Upright Chest Assembly—P279AT (Old Style)

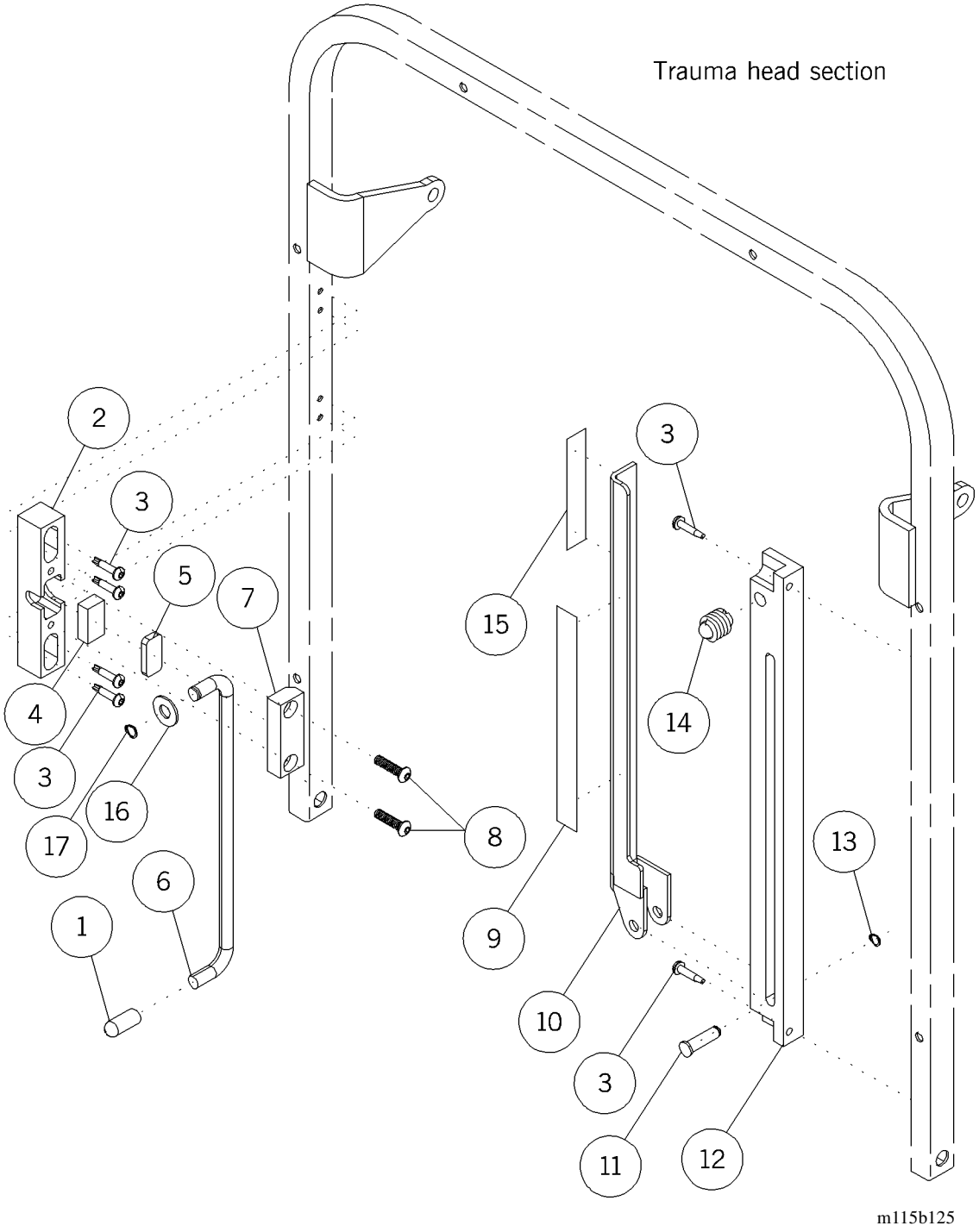


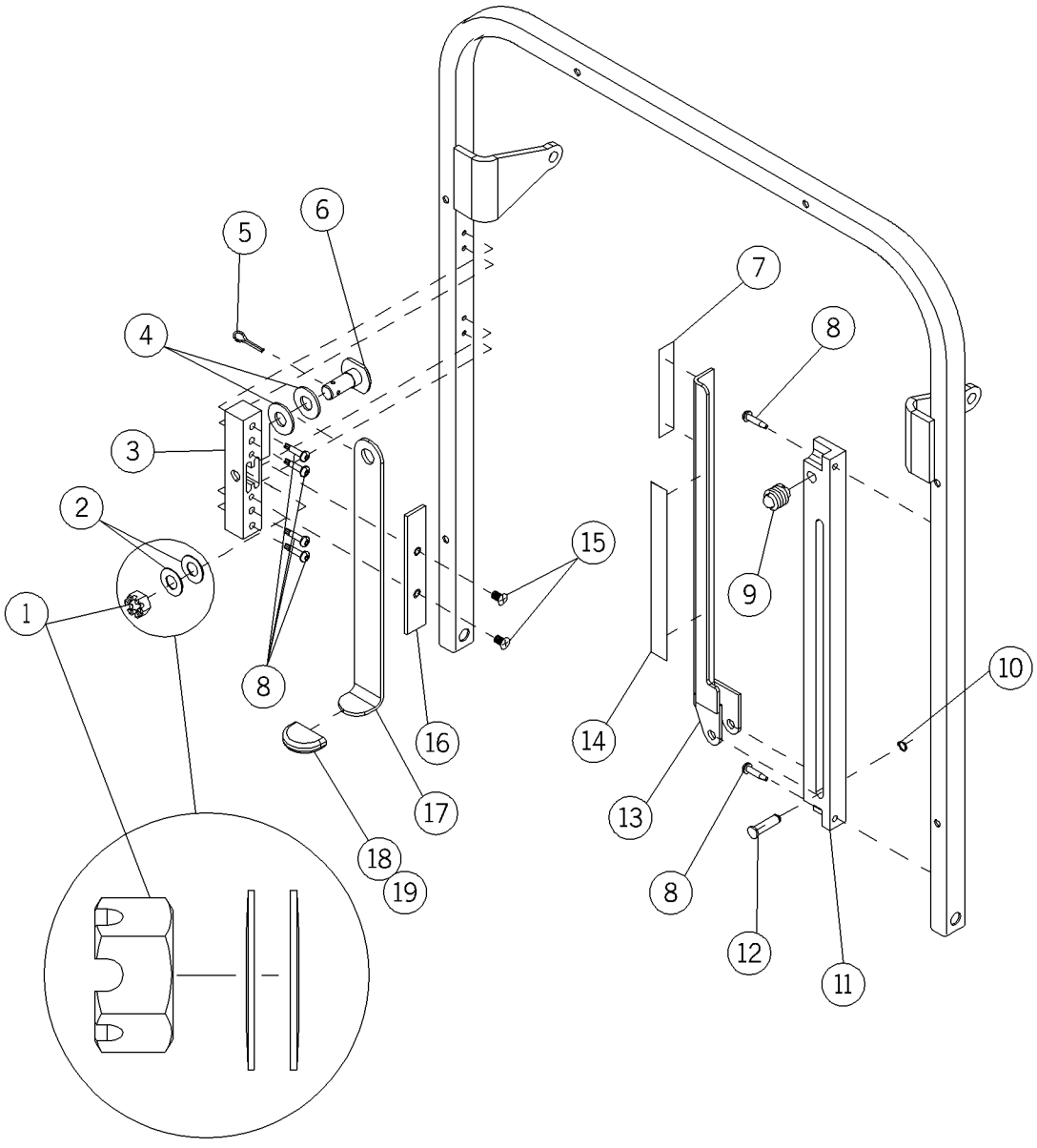
Table 5-51. Trauma Stretcher Upright Chest Assembly—P279AT (Old Style)

Item Number	Part Number	Quantity	Description
1	61099 (8000)	1	Keeper sleeve
2	61102 (8000)	1	Cassette keeper bracket
3	43879 (8000)	6	Screw, Torx®[a] button head
4	61085 (8000)	1	Cassette keeper pad
5	61098 (8000)	1	Rub plate
6	61101pl (8000)	1	Cassette keeper
7	61100 (8000)	1	Cassette keeper cover
8	44284 (8000)	2	Button head cap screw
9	46332 (8000)	1	Protective tape
10	61094 (8000)	1	Cassette support weldment
11	4645405pl (8000)	1	Head pin
12	61083 (8000)	1	Slider bracket
13	43059 (8000)	1	Retaining ring
14	61095 (8000)	1	Ball plunger
15	61562 (8000)	1	Product label
16	4540 (8000)	1	Washer
17	36957 (8000)	1	Retaining ring

a. Torx® is a registered trademark of Textron, Inc.

Trauma Stretcher Upright Chest Assembly—P279AT (New Style)

Figure 5-53. Trauma Stretcher Upright Chest Assembly—P279AT (New Style)



m115d203

Table 5-52. Trauma Stretcher Upright Chest Assembly—P279AT (New Style)

Item Number	Part Number	Quantity	Description
1	46469 (8000)	1	Locknut
2	46399 (8000)	2	Belleville washer
3	62177 (8000)	1	Keeper bracket
4	46385 (8000)	2	Oilite®[a] bushing
5	17405 (8000)	1	Cotter pin
6	62178 (8000)	1	Spring arm bolt
7	61562 (8000)	1	Product label
8	43879 (8000)	6	Screw, Torx®[b] button head
9	61095 (8000)	1	Ball plunger
10	43059 (8000)	1	Retaining ring
11	61083 (8000)	1	Slider bracket
12	4645405pl (8000)	1	Headed pin
13	61094 (8000)	1	Cassette support weldment
14	46332 (8000)	1	Protective tape
15	40999 (8000)	2	Screw
16	62176 (8000)	1	Cover plate
17	62175 (8000)	1	Spring arm
18	60843 (8000)	1	Spring arm sleeve
19	37997 (8000)	As required	Adhesive

a. Oilite® is a registered trademark of Beemer Precision, Inc.
b. Torx® is a registered trademark of Textron, Inc.

Trauma Stretcher Lateral Cassette Holder—P264

Figure 5-54. Trauma Stretcher Lateral Cassette Holder—P264

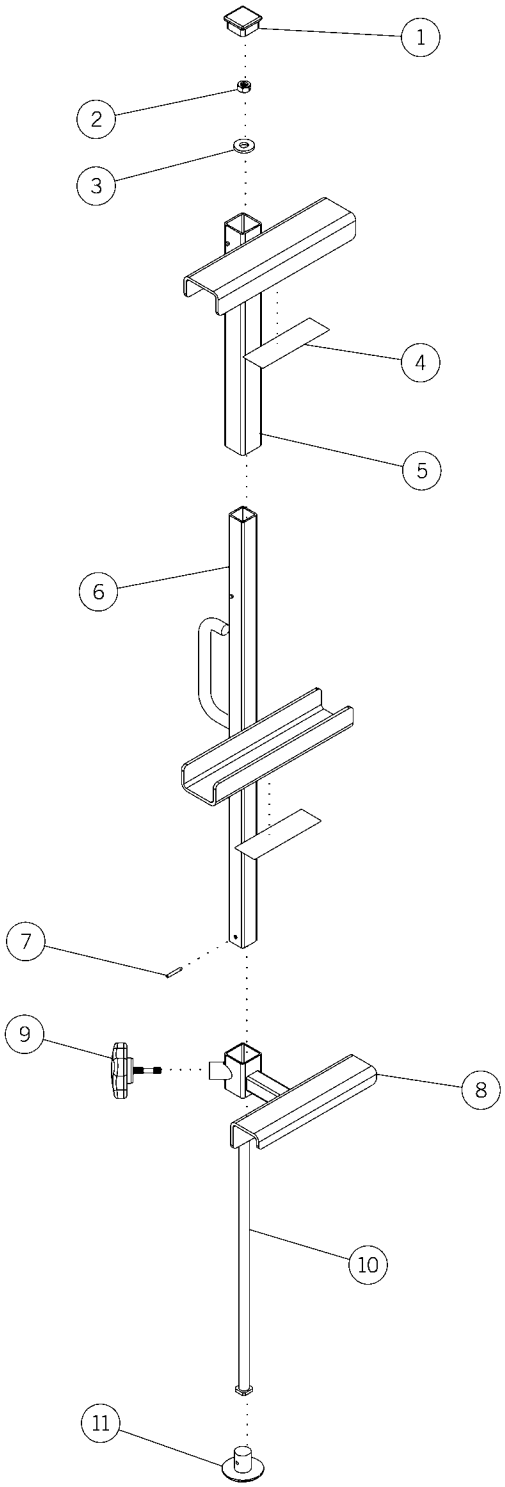


Table 5-53. Trauma Stretcher Lateral Cassette Holder—P264

Item Number	Part Number	Quantity	Description
1	4969901 (8000)	1	Knee standoff plug
2	4435 (8000)	1	Locknut
3	1012 (8000)	1	Washer
4	6064702 (8000)	1	Non-skid pad
5	61163pl (8000)	1	Outer tube weldment
6	61166pl (8000)	1	Inner tube weldment
7	10640 (8000)	1	Roll pin
8	61175pl (8000)	1	Mounting arm weldment
9	6086301 (8000)	1	Mounting knob
10	61171pl (8000)	1	Extension rod weldment
11	61681pl (8000)	1	Inner tube stop

Surgical Stretcher PACU Extender—P261

Figure 5-55. Surgical Stretcher PACU Extender—P261

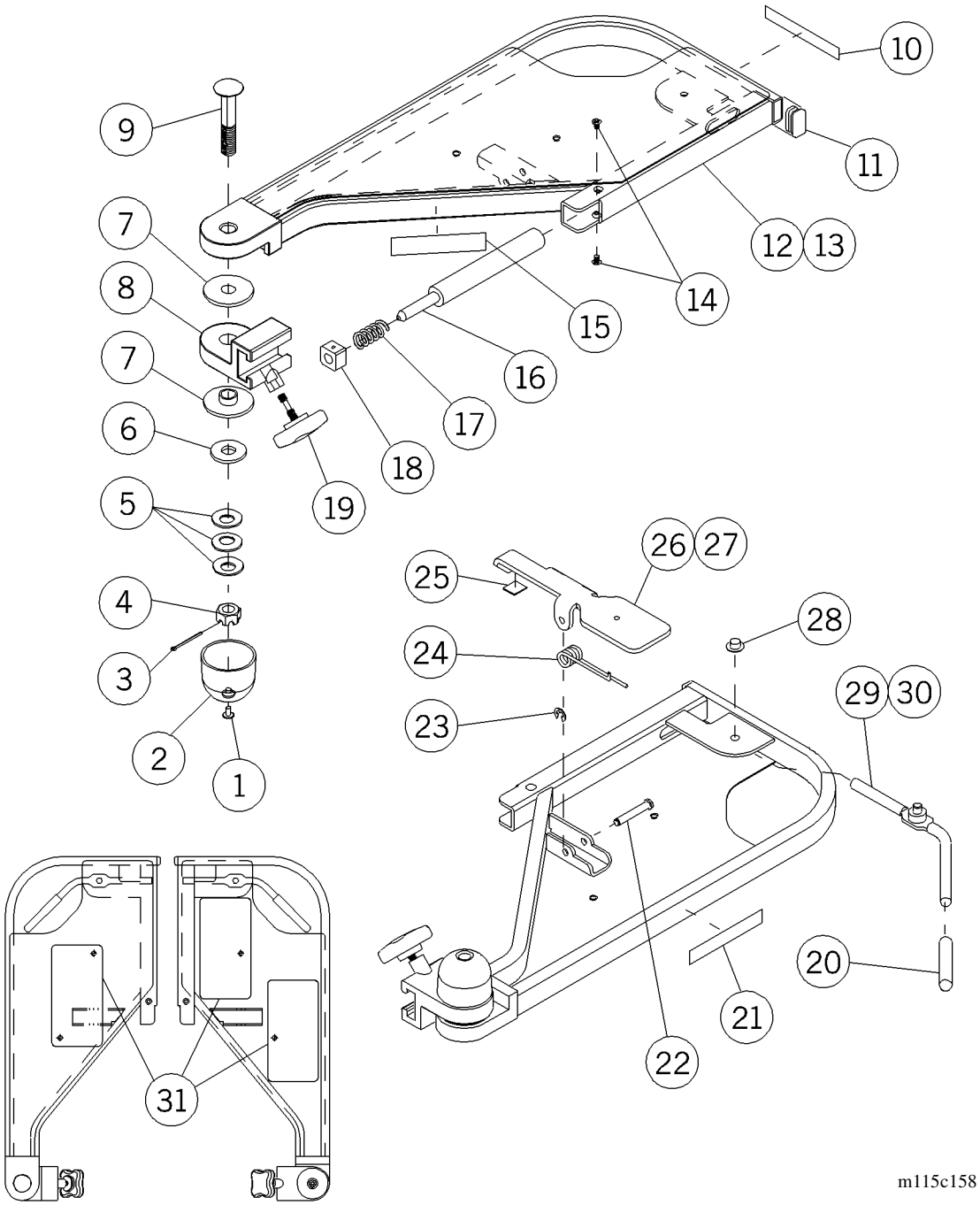


Table 5-54. Surgical Stretcher PACU Extender—P261

Item Number	Part Number	Quantity	Description
1	43878 (8000)	1	Screw, Torx®[a] button head
2	60847 (8000)	1	Plastic cover
3	17405 (8000)	1	Cotter pin
4	46469 (8000)	1	Locknut
5	46399 (8000)	3	Belleville washer
6	46387 (8000)	1	D washer
7	60852 (8000)	2	Oilite®[b] bushings
8	49070 (8000)	1	Extender knuckle
9	49684 (8000)	1	Bolt
10	46410 (8000)	1	Label, weight warning
11	60841 (8000)	1	Tube cap
12	4907901 (8000)	1	Extender weldment, lh
13	4907902 (8000)	1	Extender weldment, rh
14	9004008 (8000)	2	Screw
15	4903401 (8000)	1	Product label
16	49077 (8000)	1	Extender release plunger
17	60831 (8000)	1	Plunger spring
18	49605 (8000)	1	Plunger keeper
19	6086301 (8000)	1	Mounting knob
20	3972301 (8000)	1	Pedal sleeve
21	4903408 (8000)	1	Arm board release label
22	60846 (8000)	1	Pivot pin
23	37255 (8000)	1	Retaining ring
24	60855 (8000)	1	Arm board release paddle spring
25	6064703 (8000)	1	Non-skid pad
26	6084001 (8000)	1	Arm board release paddle, rh
27	6084002 (8000)	1	Arm board release paddle, lh
28	60821 (8000)	1	Pushnut
29	608150148 (8000)	1	Extender release handle weldment, rh

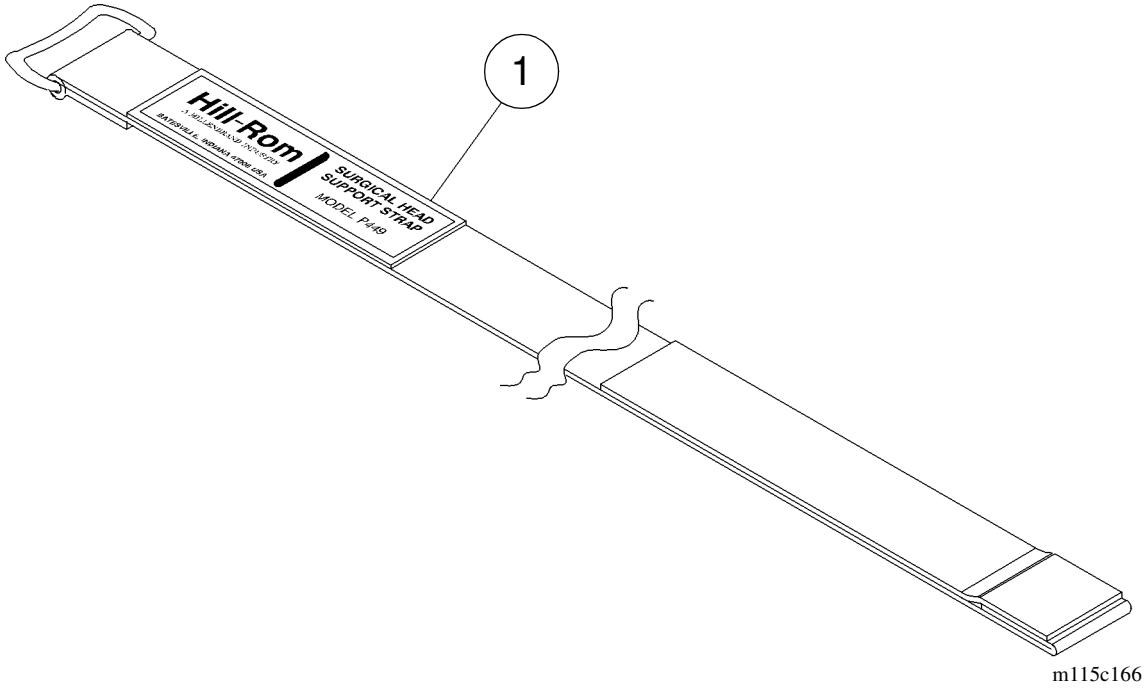
a. Torx® is a registered trademark of Textron, Inc.
b. Oilite® is a registered trademark of Beemer Precision, Inc.

Item Number	Part Number	Quantity	Description
30	608150248 (8000)	1	Extender release handle weldment, lh
31	4633401 (8000)	3	Mattress attachment Velcro®[a]
NI[b]	60645 (8000)	2	Armboard restraint strap

a. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).
b. NI - Not Illustrated.

Surgical Stretcher Head Positioning Strap—P449

Figure 5-56. Surgical Stretcher Head Positioning Strap—P449



m115c166

Table 5-55. Surgical Stretcher Head Positioning Strap—P449

Item Number	Part Number	Quantity	Description
1	46155 (8000)	1	Head positioning strap

5

Surgical Stretcher Superior Wrist Rest—P262A01

Figure 5-57. Surgical Stretcher Superior Wrist Rest—P262A01

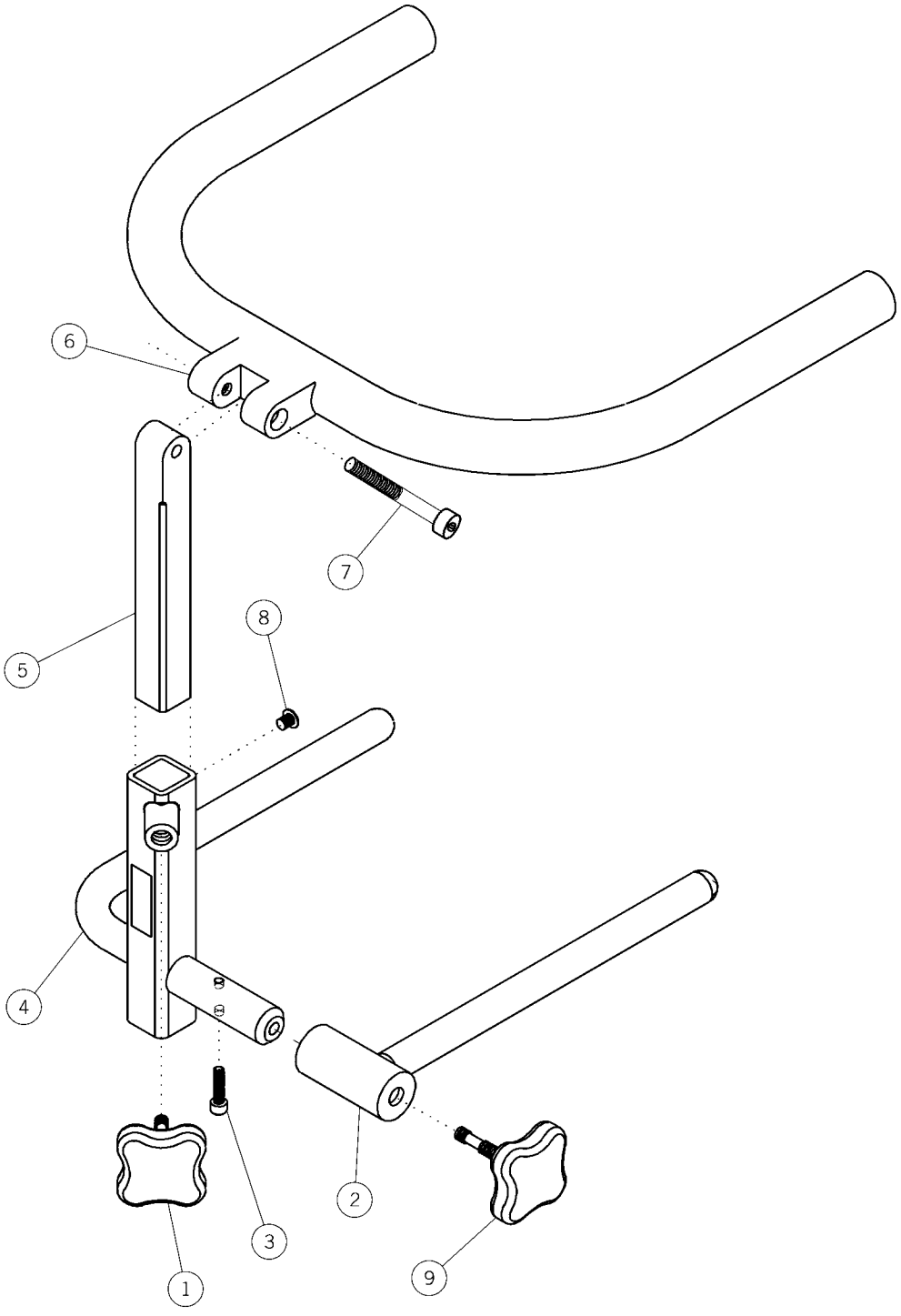


Table 5-56. Surgical Stretcher Superior Wrist Rest—P262A01

Item Number	Part Number	Quantity	Description
1	6086301 (8000)	1	Mounting knob
2	60860 (8000)	1	Superior locking weldment
3	60786 (8000)	1	Screw, socket head cap
4	60859 (8000)	1	Superior height adjustment weldment
5	46331 (8000)	1	Height adjustment bar
6	49613 (8000)	1	Superior wrist rest weldment
7	9033820 (8000)	1	Shoulder bolt
8	5701804H (8000)	1	Tri-lobular panhead screw
9	61549 (8000)	1	Temporal adjustment knob

Surgical Stretcher Temporal Wrist Rest—P262A02

Figure 5-58. Surgical Stretcher Temporal Wrist Rest—P262A02

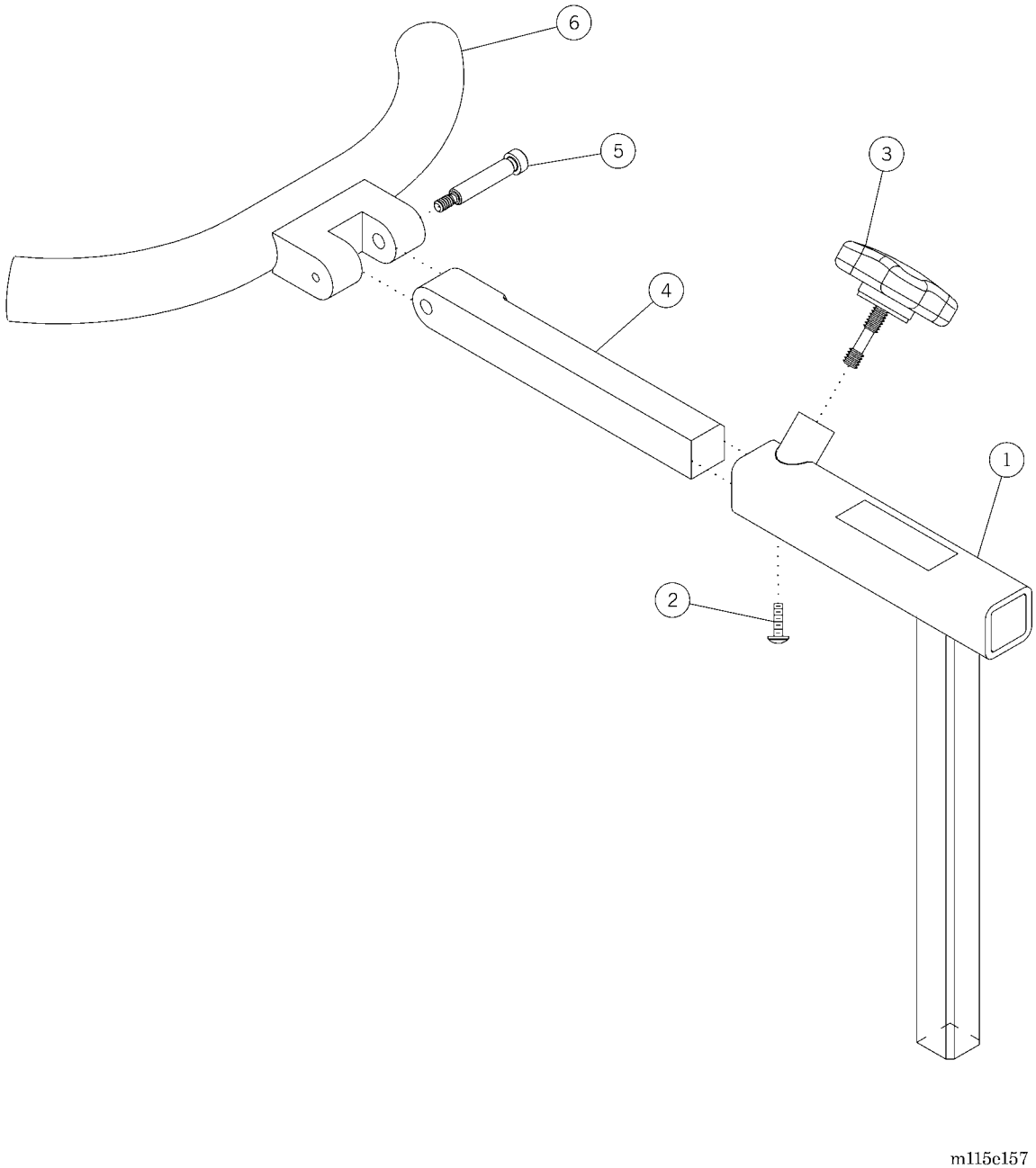


Table 5-57. Surgical Stretcher Temporal Wrist Rest—P262A02

Item Number	Part Number	Quantity	Description
1	60861 (8000)	1	Temporal height adjustment weldment
2	5701804 (8000)	1	Tri-lobular screw
3	61549 (8000)	1	Temporal adjustment knob
4	46331 (8000)	1	Height adjustment bar
5	9033820 (8000)	1	Shoulder screw
6	46186 (8000)	1	Temporal wrist rest weldment

OB/GYN Stretcher Integrated Fiber Optic Exam Light—P7915AT

Figure 5-59. OB/GYN Stretcher Integrated Fiber Optic Exam Light—P7915AT

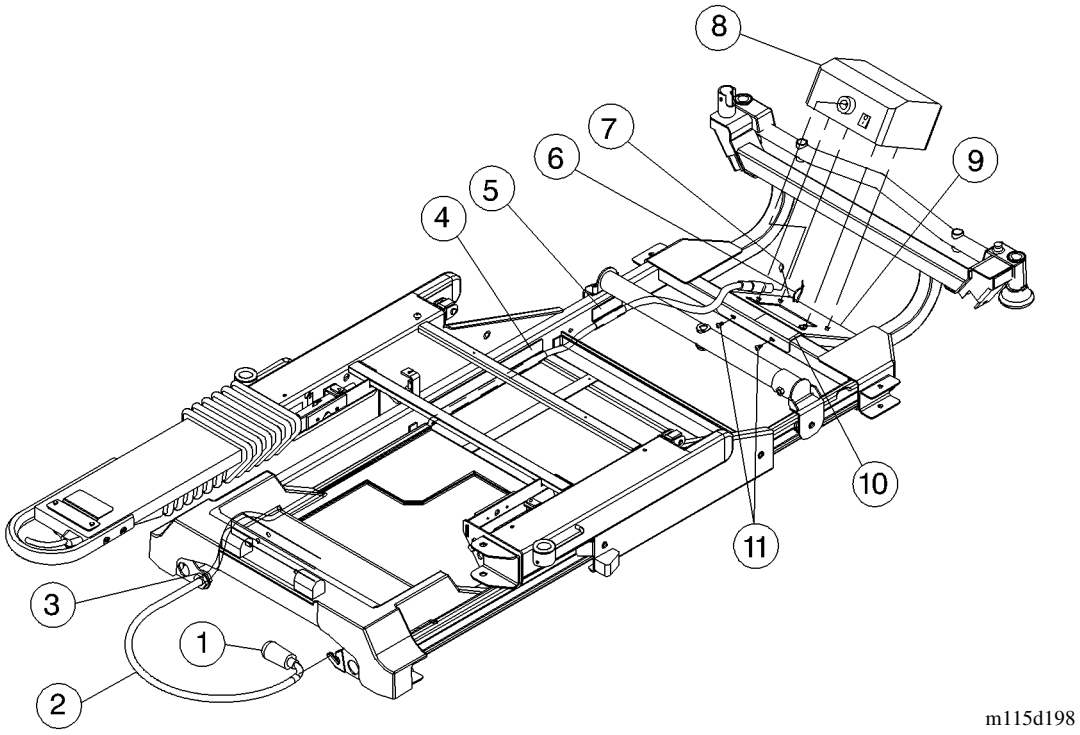


Table 5-58. OB/GYN Stretcher Integrated Fiber Optic Exam Light—P7915AT

Item Number	Part Number	Quantity	Description
1	49042 (8000)	1	Focusing sleeve
2	49003 (8000)	1	Goose neck assembly
3	SA3618 (8000)	As required	Loctite®[a] (blue #242)
4	4960701 (8000)	1	Fiber optic shroud—long
5	4960702 (8000)	1	Fiber optic cable shroud—short
6	19124 (8000)	1	Large cable tie
7	62918 (8000)	2	Vinyl dipped cap
8	49004 (8000)	1	Illuminator box
9	6742448 (8000)	1	Mounting plate, exam light
10	49033 (8000)	1	Label wipe down
11	43878 (8000)	2	Screw, Torx®[b] button head
NI[c]	65051 (8000)	1	Lamp
NI	17AZ100 (8000)	1	Power cord

a. Loctite® is a registered trademark of Loctite Corporation.
b. Torx® is a registered trademark of Textron, Inc.
c. NI - Not Illustrated

OB/GYN Stretcher Placenta Basin—P265

Figure 5-60. OB/GYN Stretcher Placenta Basin—P265

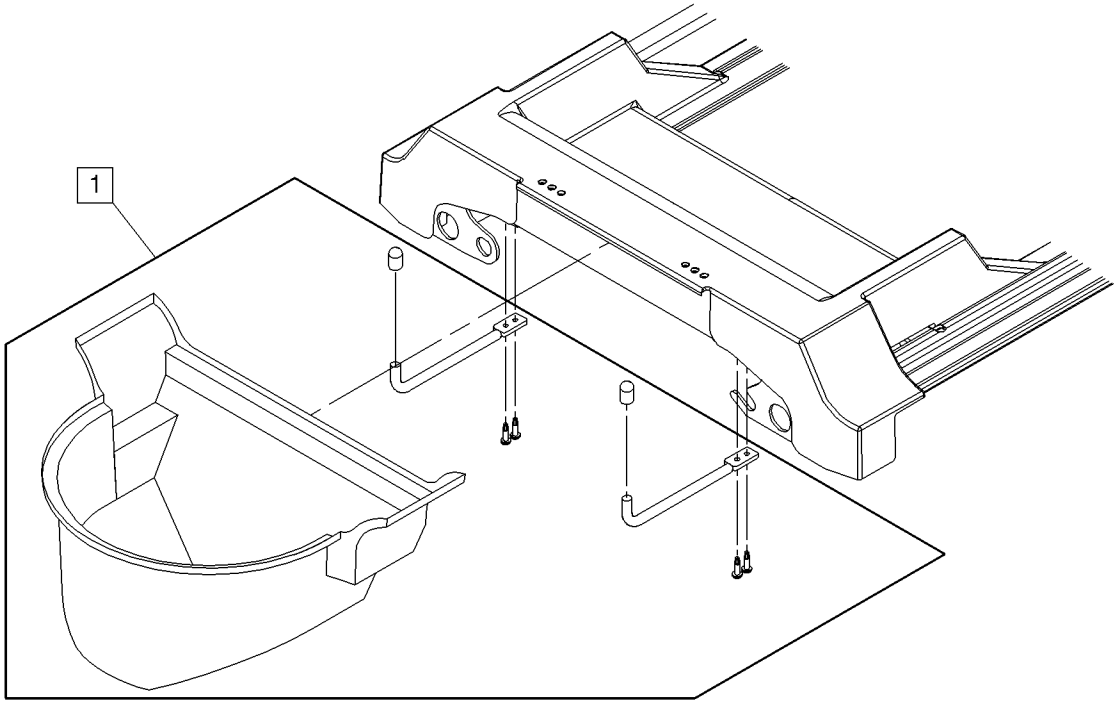


Table 5-59. OB/GYN Stretcher Placenta Basin—P265

Item Number	Part Number	Quantity	Description
1	P265 (8000)	1	Placenta basin assembly

NOTES:

OB/GYN Stretcher Telescoping Calf Support—P35745AT

Figure 5-61. OB/GYN Stretcher Telescoping Calf Support—P35745AT

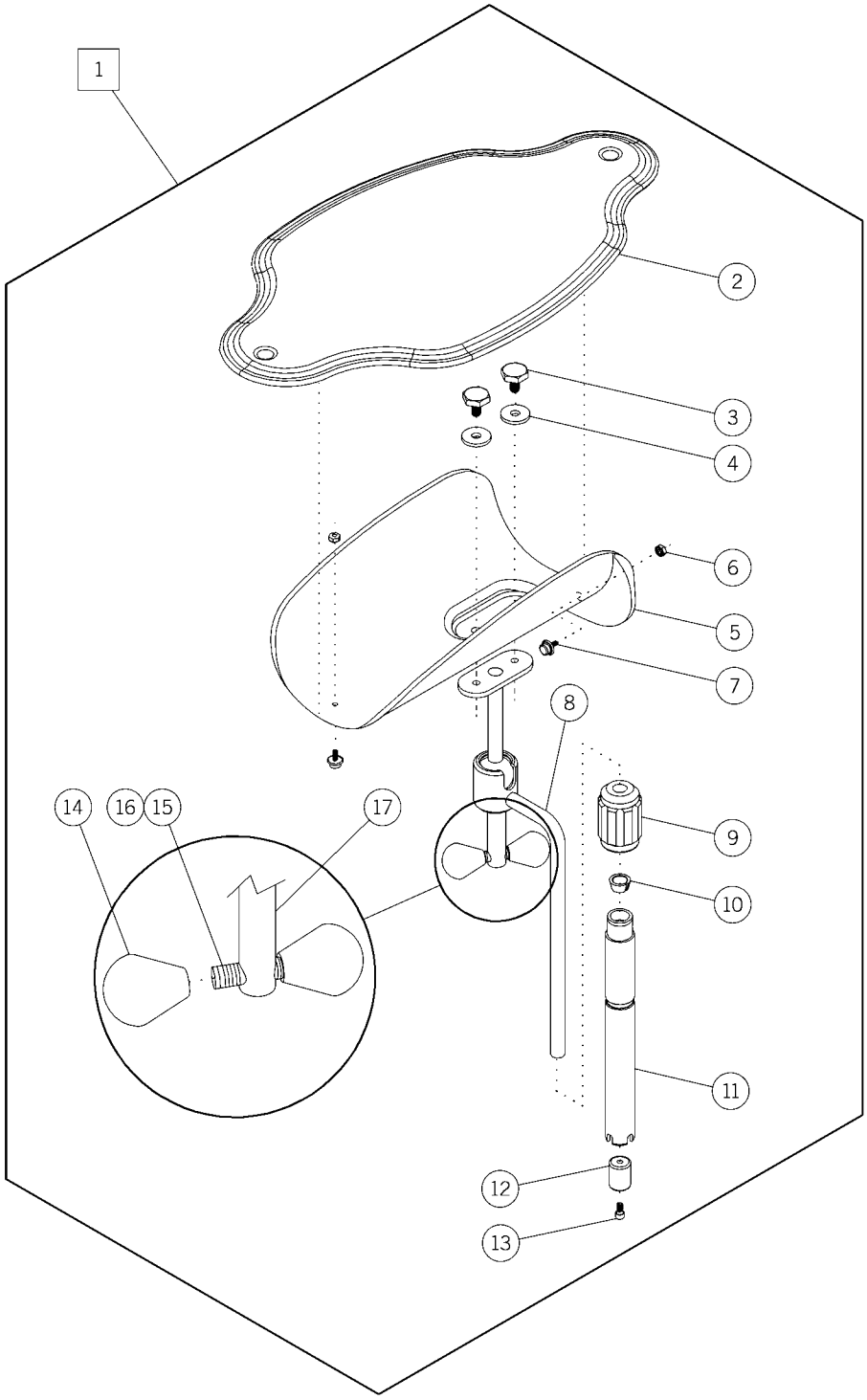


Table 5-60. OB/GYN Stretcher Telescoping Calf Support—P35745AT

Item Number	Part Number	Quantity	Description
1	62914 (8000)	2	Calf support assembly
2	41097 (8000)	1	Cover assembly
3	19224 (8000)	2	Bolt, hex head, 5/16-18 x 5/8
4	19918 (8000)	2	Washer
5	4126048 (8000)	1	Calf support shell
6	15250 (8000)	2	Nut, hex lockwasher, #8-32
7	44768 (8000)	2	Durable screw stud
8	60382 (8000)	1	Calf support swivel weldment
9	3500201 (8000)	1	Collet
10	35007 (8000)	1	Ferrule
11	49682 (8000)	1	Calf support tube weldment
12	49098 (8000)	1	Calf support bushing
13	9026706 (8000)	1	Cap screw, socket head, #10-24 x 3/8
14	37144 (8000)	2	Knob
15	37146 (8000)	1	Knob stud
16	SA4841 (8000)	As required	Loctite®[a] (red #262)
17	37145 (8000)	1	Lock stud

a. Loctite® is a registered trademark of Loctite Corporation.

Mattresses

Table 5-61. Mattresses

Part Number	Ticking Number	Description
Standard Mattresses—Blue Dartex®[a] Top and Bottom Cover		
P1430CAT3 (8000)	6002805	Standard width, tapered head and foot, 3"
P1430CAS3 (8000)	6002802	Standard width, tapered head square foot, 3"
P1430EAT3 (8000)	6002805	Standard width, tapered head and foot, 3", flame retardant
P1430EAS3 (8000)	6002802	Standard width, tapered head square foot, 3", flame retardant
P1430CAT4 (8000)	6002806	Standard width, tapered head and foot, 4"
P1430CAS4 (8000)	6002803	Standard width, tapered head square foot, 4"
P1430EAT4 (8000)	6002806	Standard width, tapered head and foot, 4", flame retardant
P1430EAS4 (8000)	6002803	Standard width, tapered head square foot, 4", flame retardant
P1430GA03 (8000 Europe)	6002003	Standard width, tapered head and foot, 77 mm (3")
P1431CACP (8000)	6008902 6009002 6009102	Surgical mattress, standard width Contoured head pad insert Contoured head pad
P1431CAFP (8000)	6008902 6009202	Surgical mattress, standard width Flat head pad
P1431EACP (8000)	6008904 6009004 6009104	Surgical mattress, standard width Contoured head pad insert Contoured head pad
P1431EAFP (8000)	6008904 6009204	Surgical mattress, standard width Flat head pad

a. Dartex® is a registered trademark of Courtalds Textiles Ltd.

Part Number	Ticking Number	Description
P1432CAT3 (8000)	6002811	Wide width, tapered head and foot, 3"

P1432CAS3 (8000)	6002808	Wide width, tapered head square foot, 3"
P1432EAT3 (8000)	6002811	Wide width, tapered head and foot, 3", flame retardant
P1432EAS3 (8000)	6002808	Wide width, tapered head square foot, 3", flame retardant
P1432CAT4 (8000)	6002812	Wide width, tapered head and foot, 4"
P1432CAS4 (8000)	6002809	Wide width, tapered head square foot, 4"
P1432EAT4 (8000)	6002812	Wide width, tapered head and foot, 4", flame retardant
P1432EAS4 (8000)	6002809	Wide width, tapered head square foot, 4", flame retardant
P1432GA03 (8000 Europe)	6002004	Wide width, tapered head and foot, 77 mm (3")
Comfortline Mattresses—Blue Dartex® Top and Bottom Cover		
P1433CAT (8000)	6002814	Standard width, tapered head and foot
P1433CAS (8000)	6002813	Standard width, tapered head square foot
P1433EAT (8000)	6002814	Standard width, tapered head and foot, flame retardant
P1433EAS (8000)	6002813	Standard width, tapered head square foot, flame retardant
P1433GA0 (8000 Europe)	6002005	Standard width, tapered head and foot
P1434CAT (8000)	6002816	Wide width, tapered head and foot
P1434CAS (8000)	6002815	Wide width, tapered head square foot
P1434EAT (8000)	6002816	Wide width, tapered head and foot, flame retardant
P1434EAS (8000)	6002815	Wide width, tapered head square foot, flame retardant
P1434GA0 (8000 Europe)	6002006	Wide width, tapered head and foot

NOTES:

Chapter 6
General Procedures

Chapter Contents

Cleaning and Care . . . . . 6 - 3
- Caring For The Wood Components . . . . . 6 - 3
- General Cleaning . . . . . 6 - 4
- Steam Cleaning . . . . . 6 - 4
- Spray Washing (Not Applicable to Electric Stretcher) . . . . . 6 - 4
- Cleaning Hard to Clean Spots . . . . . 6 - 4
- Disinfecting . . . . . 6 - 4
- Mattress Draping (OB/GYN Stretcher) . . . . . 6 - 5

Component Handling—Electric Stretcher . . . . . 6 - 6
- P.C. Board . . . . . 6 - 6

Lubrication Requirements . . . . . 6 - 7

Preventive Maintenance . . . . . 6 - 8
- Preventive Maintenance Schedule . . . . . 6 - 9
- Preventive Maintenance Checklist . . . . . 6 - 12

Tool and Supply Requirements . . . . . 6 - 15

6

NOTES:

Cleaning and Care

WARNING:
Follow the product manufacturer's instructions. Failure to do so could result in personal injury or equipment damage.

SHOCK HAZARD:
Unplug the unit from its power source. Failure to do so could result in personal injury or equipment damage.

SHOCK HAZARD:
Do not expose the unit to excessive moisture which would allow liquid to pool. Personal injury or equipment damage could occur.

CAUTION:
Do not use harsh cleansers or detergents such as scouring pads and heavy-duty grease removers, or solvents such as toluene, xylene, and acetone. Equipment damage could occur.

CAUTION:
Remove the integrated fiber optic exam light assembly before spray washing the stretcher. Failure to do so could result in equipment damage.

WARNING:
Do not touch the illuminator box immediately after use. Allow a minimum of 30 minutes for the lamp to cool before removing it. Failure to do so could result in personal injury or equipment damage.

Caring For The Wood Components

All Hill-Rom® wood products are treated with a resin based sealer and finish that provide resistance to abrasion, staining, and fluids. Many disinfectant cleaners have a softening effect on any painted or finished surface if used in high concentrations. A solution of warm water and detergent may be used, as well as any EPA approved hospital cleanser/disinfectant, used at the manufacturer's suggested dilutions.

Clean the surface with a soft dampened cloth, followed by wiping with a dry cloth. At no time should a wet cloth be allowed to remain on the surface. Any liquid spilled on the surface should be wiped up immediately. Do not allow any liquid to lie on the surface unattended. Damage to the surface could occur.

For protection of the finish, use a liquid type furniture polish. Polish about once a month, and wipe off any excess with a soft dry cloth. Repair any nicks or scrapes to prevent water damage.

General Cleaning

Clean the unit with lightly dampened cloth and ordinary disinfectants. Do not use excessive liquid.

Steam Cleaning

Do not use any steam cleaning device on the TranStar® Series Stretcher. Excessive moisture can damage mechanisms in this unit.

Spray Washing (Not Applicable to Electric Stretcher)

CAUTION:
Do not directly spray the hydraulic cylinders. Equipment damage could occur.

CAUTION:
Do not exceed 25 psi (172 kPa) when spray washing. Equipment damage could occur.

You can spray wash the stretcher as often as desired. Use a **maximum** nozzle pressure of 25 psi (172 kPa) at 6" (152 mm). Spray wash comprised of water only should not exceed a temperature of 180°F (82°C). Spray wash comprised of detergent/solvents (**no bleach**) should not exceed a temperature of 120°F (50°C). Prepare any exposed or chipped steel parts or oxidized areas, and coat with paint after washing.

Cleaning Hard to Clean Spots

To remove difficult spots or stains, use standard household cleaners and a soft bristle brush. To loosen heavy, dried-on soil or excreta, you may first need to saturate the spot.

Disinfecting

Dilute disinfectants and germicides as specified on the manufacturer's label.

Mattress Draping (OB/GYN Stretcher)

CAUTION:
Mattress damage caused by improper draping and/or cleaning procedures is not covered by the warranty.

Correct draping techniques are essential to help to preserve the life of the mattress. Drapes must be fluid repellent. The full size labor and delivery drape effectively covers the lower three-quarters of the bedding throughout labor. Place additional pads or towels under the patient to keep fluid from reaching the edges of the drape. This keeps the sheets clean and dry while preventing fluid exposure to the mattress.

CAUTION:
Standard OB packs and paper drapes will not keep the sheets dry. Mattress damage could occur.

Repeated soaking and scrubbing of mattress materials will accelerate wear and eventually destroy mattress seals, causing fluids to leak into the cushions.

Component Handling—Electric Stretcher

CAUTION:
To help prevent component damage, ensure that your hands are clean, and **only** handle the P.C. board by its edges.

CAUTION:
When handling electronic components, wear an antistatic strap. Failure to do so could result in component damage.

CAUTION:
For shipping and storage, place the removed P.C. board in an antistatic protective bag. Failure to do so could result in component damage.

P.C. Board

When servicing the P.C. board, follow good handling practices. Mishandling a P.C. board can cause the following:

- P.C. board damage
- Shortened P.C. board life
- Unit malfunctions

Observe the following P.C. board handling rules:

- Ensure that hands are clean and free of moisture, oily liquids, etc.
- **Only** handle the P.C. board by its outer edges.
- Do not touch the P.C. board components. Finger contact with the board surface and/or with its components can leave a deposit that will result in board (and component) deterioration.
- When working with electronics, wear an appropriate antistatic strap, and ensure that it is properly grounded.
- Service the removed P.C. board at a static-free workstation that is properly grounded.
- For shipping and storage, place the removed P.C. board in an antistatic protective bag.

Lubrication Requirements

WARNING:
Follow the product manufacturer's instructions. Failure to do so could result in equipment damage and personal injury.

CAUTION:
Do not use silicone-based lubricants. Equipment damage could occur.

Oilite®[1] bearings and bushings are utilized in several places on the system. By retaining oil, the pores give a self-lubricating quality to the bearings and bushings. If any silicone-based lubricant is applied to the bearings and bushings or anywhere else on the system, this self-lubricating quality is neutralized.

It is safe to apply the following lubricants to the system (see table 6-1 on page 6-7):

Table 6-1. Lubricants

Part Number	Description
8252 (100)	2 oz m-1 oil (apply to Oilite® bearings and bushings)
SA3351 (100)	4 oz lithium grease

6

1. Oilite® is a registered trademark of Beemer Precision, Inc.

Preventive Maintenance

The TranStar® Series Stretcher must have an effective maintenance program. We recommend that you perform preventive maintenance and testing for Joint Commission on Accreditation of Healthcare Organizations (JCAHO) semiannually. This not only meets JCAHO requirements, but will help to ensure a long and productive life for the TranStar® Series Stretcher. This will help minimize downtime due to excessive wear failures.

The preventive maintenance schedule that follows is intended to guide the technician through a normal preventive maintenance procedure on the TranStar® Series Stretcher (see table 6-2 on page 6-9). Check each item on the schedule, and make any necessary adjustments during the preventive maintenance process.

The preventive maintenance schedule is intended to be used in conjunction with the preventive maintenance checklist following it (see table 6-3 on page 6-12). This checklist is designed to keep a running history of maintenance and subsequent repair costs for one individual TranStar® Series Stretcher. However, the facility can modify this checklist or invent another to fit their needs. Keeping close records and maintaining the TranStar® Series Stretcher and its accessories are two effective ways to reduce downtime and ensure that the patient remains comfortable.

Preventive Maintenance Schedule

Table 6-2. Preventive Maintenance Schedule

Function	Procedure
Brake	Place the stretcher in the brake position. Check to see that the pedal locks into position, and that all four casters do not roll or rotate. Inspect the brake pads for wear. Adjust if required.
Corner steer	Ensure that the pedal is in the steer position and that only the patient left foot end caster locks into a position parallel to the side of the bed.
Steering Plus™ Steering System	Inspect for proper operation and tracking. Using a 6" straight edge, check to see if the three linkage mechanism pivots are slightly over center when steering is engaged. Check for any interferences. With the brake set, check for 3 ½" (89 mm) clearance between the floor and the Steering Plus™ Steering System wheel. The Steering Plus™ Steering System wheel hub should not be able to be rotated by hand.
Neutral	Place the stretcher in the neutral position. Check to see that the pedal locks into position, and that all four casters rotate and roll freely.
Caster tires	Check the tires for cuts, wear, tread life, etc.
Head and foot pedals	Inspect for wear on pads or missing pads.
Knee screw assembly	Inspect for proper operation and lubrication.
Siderails	Inspect for proper up/down operation. Inspect the locking handle for proper operation. Inspect the latch for proper operation. Check the torque on the pivot bolts and latch shoulder bolt.
Pivot points	Lubricate all pivot points on the stretcher.
Trendelenburg/ Reverse Trendelenburg	Activate the Trendelenburg and Reverse Trendelenburg. Inspect for proper operation.
Hilow positions	Test the pump action of the stretcher. It should not exceed 28 pumps (24 for the PC-100/PC-200 Procedural Stretcher) to achieve maximum height. Test the smoothness of lowering.
Pump pedal	Inspect the pump pedals; ensure both cylinder rods extend. Also check for any linkage interferences.
Pedals	Ensure all pedal pads and down pedal stops are fully seated and glued down.

(Continued on next page.)

Table 6-2. Preventive Maintenance Schedule *(cont'd.)*

Function	Procedure
Back section gas spring	Perform the following: Ensure that the locknut on the shoulder bolt at the upper frame interface is installed flush and fully seated with the mating part. At its highest position, inspect the gas spring rod for scratches, nicks, or dents. Inspect the gas spring jam nut to ensure it is flush and fully seated.
Articulating headrest gas spring	Perform the following: Ensure that the retaining ring is fully seated in the groove of the attachment headed pin. At its highest position, inspect the gas spring rod for scratches, nicks, or dents. Inspect the gas spring jam nut to ensure it is flush and fully seated.
OB/GYN stretcher foot support gas spring	Perform the following: Ensure that the locknuts on the shoulder bolts at the foot rest weldment interface are installed flush and fully seated with the mating part.
Push handles	Inspect for proper up/down operation and latching. Inspect the shoulder bolts. Tighten until the shoulder is fully seated, if required. Lubricate pivots, if required.
OB/GYN stretcher patient grip handles	Inspect for cuts, wear, etc. Replace if necessary. See "OB/GYN Stretcher Patient Grip Handle" on page 4-27.
Back section manual crank	Inspect for proper operation and lubrication.
Thigh section manual crank	Inspect for proper operation and lubrication.
OB/GYN stretcher store-away foot section	Inspect for proper operation and latching after removal, and storage. Inspect the foot section latch/release mechanism for proper operation.
OB/GYN stretcher gliding litter	Inspect for proper slide engagement of the carriage along the upper frame. Inspect the foot support release handles for proper operation. Verify that the carriage locks in both the exam and procedural positions.

(Continued on next page.)

Table 6-2. Preventive Maintenance Schedule *(cont'd.)*

Function	Procedure
CPR release	Pull the CPR handle and check to see that the back section can be manually raised and lowered. Check for wear on the lock hub (see figure 5-28 on page 5-94). Replace if worn. Check to see that the hex nuts on the CPR cable and the shoulder screw on the CPR handle are tight.
Wiring harness	Inspect for nicks, cuts, and breaks.
Motor mounts	Inspect for cracks in weldments.
Power cord and plug	Inspect for nicks, cuts, and breaks.
Nurse controls	Test all the bed function switches on the nurse control panel for proper operation and function. Check for the head section to raise max 90° using the nurse control.
Control board mounts	Make sure the board mounts are secure and in place.
Patient controls (both siderails)	Test all the bed function switches on the patient control panel for proper operation and function. Check for the head section to raise max 65° using the patient control.
Electrical test	Test the bed, and assign an inspection sticker to the stretcher.
LEDs	Check for illumination.
Fixed height stretcher adjustment	Check for tightness in height adjustment pins and screws.
Cassette lift mechanism	Pull the handle and rotate 180°. Check to see that the cassette support surface is raising and lowering properly without binding. Check for proper spring tension in the handle.
OB/GYN integrated fiber optic exam light	Inspect the power cord for nicks, cuts, and breaks. Check the gooseneck for proper positioning and stability. Check the fiber optic light for proper illumination.
OB/GYN telescoping calf supports	Check the tightening/release mechanism for proper operation. Verify free rotation to ensure that there is no binding. Verify when the grip is rotated to the right, the ball joint is tightened. Repair or replace as required.
Overall appearance	Inspect for general aesthetics of the stretcher. Touch up the paint where necessary. Inspect all labels, and replace as necessary. Inspect for cleanness.

Preventive Maintenance Checklist

Table 6-3. Preventive Maintenance Checklist

Date																						**Function**
Hill-Rom, Inc.	**Manufacturer**																					Brake
																						Corner steer
																						Steering Plus™ Steering System
																						Neutral
	Model Number																					Caster tires
																						Head and foot pedals
																						Knee screw assembly
																						Siderails
																						Pivot points
	Serial Number																					
																						Trendelenburg
																						Reverse Trendelenburg
																						Hilow positions
																						Pump pedal
	Total Cost for This Page																					Labor Time:
																						Repair Cost:
																						Inspected By:
																						Legend L=Lube C=Clean A=Adjust R=Repair or Replace O=Okay N=Not Applicable Remarks:

(Continued on next page.)

Table 6-3. Preventive Maintenance Checklist *(cont'd.)*

Date																						**Function**
Hill-Rom, Inc.	**Manufacturer**																					Pedals
																						Back section gas spring
																						Articulating headrest gas spring
																						Foot support gas spring
	Model Number																					Push handles
																						Patient grip handles
																						Back section manual crank
																						Thigh section manual crank
																						Store-away foot section
	Serial Number																					
																						Gliding litter
																						CPR release
																						Wiring harness
																						Motor mounts
	Total Cost for This Page																					Labor Time:
																						Repair Cost:
																						Inspected By:
																						Legend L=Lube C=Clean A=Adjust R=Repair or Replace O=Okay N=Not Applicable Remarks:

(Continued on next page.)

Table 6-3. Preventive Maintenance Checklist *(cont'd.)*

Date																						**Function**
Hill-Rom, Inc.	**Manufacturer**																					Power cord and plugs
																						Nurse controls
																						Control board mounts
																						Patient controls (left siderail)
	Model Number																					Patient controls (right siderail)
																						Electrical test
																						LEDs
																						Fixed height adjustment
																						Cassette lift mechanism
	Serial Number																					
																						Fiber optic exam light
																						Telescoping calf supports
																						Overall appearance
	Total Cost for This Page																					Labor Time:
																						Repair Cost:
																						Inspected By:
																						Legend L=Lube C=Clean A=Adjust R=Repair or Replace O=Okay N=Not Applicable Remarks:

Tool and Supply Requirements

The following tools are required to service the TranStar® PC-100/PC-200/ PC-300/PC-350/PC-400/PC-450/PC-500/PC-550 Series Stretcher:

- Ratchet
- Torque wrench 0-250 in-lb
- Torx®[1] head bit sizes T25 and T30
- Sockets sizes 1/8" to 1" in 1/16" increments
- 13 mm socket
- Hex head bits, sizes 1/8" to 5/16" in 1/32" increments
- Adjustable wrench
- Open end and box end wrenches, 1/8" to 1" in 1/16" increments
- 17 mm open end wrench
- Allen™[2] wrench, sizes 1/8" to 5/16" in 1/32" increments
- Phillips head screwdriver
- Slotted head screwdriver
- Pliers
- Retaining ring removal/installation tool
- Side cutters
- Rubber mallet
- Hammer
- Pin punch sizes 1/8", 3/16", and 5/16"
- Drill
- Drill bits, sizes 1/16" to 1" in 1/32" increments
- Extraction tool (P/N 429022)
- 6" straight edge
- 8" x 2" x 4" (203 mm x 51 mm x 102 mm) lumber
- Lithium-base grease (P/N SA3351)
- Blue Loctite®[3] (P/N SA3618) adhesive

1. Torx® is a registered trademark of Textron, Inc.
2. Allen™ is a trademark of Industrial Fasteners, Inc.
3. Loctite® is a registered trademark of Loctite Corporation.

NOTES:

Chapter 7
Accessories

Chapter Contents

Accessories . . . . . 7 - 5
Infusion Support System (ISS) Transfer Pole. . . . . 7 - 7
Installation . . . . . 7 - 7
IV Pole . . . . . 7 - 8
Installation . . . . . 7 - 8
Removal . . . . . 7 - 8
Permanent IV Pole . . . . . 7 - 9
Raising . . . . . 7 - 9
Lowering. . . . . 7 - 9
Patient Tray. . . . . 7 - 10
Installation . . . . . 7 - 10
Removal . . . . . 7 - 10
Footboard . . . . . 7 - 11
Using the Footboard as a Stretcher Extender . . . . . 7 - 11
Installation . . . . . 7 - 11
Removal . . . . . 7 - 11
Convertible Footboard . . . . . 7 - 12
Installing as a Footboard. . . . . 7 - 12
Installing as a Transport Shelf/Charting Area . . . . . 7 - 12
Storing. . . . . 7 - 13
Installing as a Foot Extender . . . . . 7 - 13
Removal . . . . . 7 - 13

IV Transporter. . . . . 7 - 14
Installation . . . . . 7 - 14
Oxygen Tank Holder . . . . . 7 - 17
Installation . . . . . 7 - 17
Liquid Oxygen Tank Holder. . . . . 7 - 18
Installation . . . . . 7 - 18
Push Handles. . . . . 7 - 19
Installation . . . . . 7 - 19
Chart Holder . . . . . 7 - 21
Installation . . . . . 7 - 21
Removal . . . . . 7 - 21
Security Straps . . . . . 7 - 22
Installation . . . . . 7 - 22
Removal . . . . . 7 - 22
Utility Tray . . . . . 7 - 23
Installation . . . . . 7 - 23
Removal . . . . . 7 - 23
Armboard . . . . . 7 - 25
Installation . . . . . 7 - 25
Upright Chest Cassette Holder (Old Style). . . . . 7 - 27
Installation . . . . . 7 - 27
Upright Chest Cassette Holder—P279AT (New Style) . . . . . 7 - 29
Installation . . . . . 7 - 29
Removal . . . . . 7 - 31
Adjustment . . . . . 7 - 31
Cleaning . . . . . 7 - 31
Lateral Cassette Holder. . . . . 7 - 32
Installation . . . . . 7 - 32
Ankle Stirrups. . . . . 7 - 33
Installation . . . . . 7 - 33

PACU Extender . . . . . 7 - 35
Installing the PACU Extender . . . . . 7 - 35
Using the PACU Extender as an Armboard . . . . . 7 - 36
Returning the PACU Extender from the Armboard Position to Extender . . . 7 - 36
Superior Wrist Rest. . . . . 7 - 37
Installation . . . . . 7 - 37
Removal . . . . . 7 - 38
Temporal Wrist Rest. . . . . 7 - 39
Installation . . . . . 7 - 39
Removal . . . . . 7 - 40
Gas Delivery System . . . . . 7 - 41
Installation . . . . . 7 - 41
Cleaning . . . . . 7 - 42
Head Positioning Strap . . . . . 7 - 43
Installation . . . . . 7 - 43
Placenta Basin—P265. . . . . 7 - 45
Installation . . . . . 7 - 45
Removal . . . . . 7 - 46
Cleaning . . . . . 7 - 46
Telescoping Calf Supports—P35745AT . . . . . 7 - 47
Installation . . . . . 7 - 47
Adjustment . . . . . 7 - 48
Storage . . . . . 7 - 48
Cleaning . . . . . 7 - 49
Integrated Fiber Optic Exam Light—P7915AT . . . . . 7 - 50
Factory Installation . . . . . 7 - 50
Complete (Non-Factory Installed) Installation . . . . . 7 - 52
Cleaning . . . . . 7 - 56
Headboard Assembly—P4120CT. . . . . 7 - 57
Installation . . . . . 7 - 57
Removal . . . . . 7 - 57

Steering Plus™ Steering System Field Upgrade—98V235 . . . . . 7 - 58
Field Upgrade (Factory Installed) Installation . . . . . 7 - 58
Removal . . . . . 7 - 65
Adjustment . . . . . 7 - 65
Cleaning . . . . . 7 - 66

Accessories

See table 7-1 on page 7-5 for the TranStar® Series Stretcher accessories.

Table 7-1. Accessories List

Product Number	Description
P158	ISS transfer pole
2217	IV pole
46151	Permanent IV pole
P490	Patient tray
P4120CT*	Footboard
350CT*	Convertible footboard
P491	IV transporter
P276	Oxygen tank holder
46392s	Push handles
P361	Chart holder
P349	Security straps
P931AT	Siderail pads
P163	ISS socket adapter
P297A01/A02	Utility tray
P273	Liquid oxygen tank holder
P344AT	Armboard
279AT	Upright chest cassette holder (Old Style)
P279AT	Upright chest cassette holder (New Style)
P264	Lateral cassette holder
347A	Ankle stirrups
P261	PACU extender
P262A01	Superior wrist rest
P262A02	Temporal wrist rest
P263	Gas delivery system
P449	Head positioning strap

* Specify high pressure laminate color.

(Continued on next page.)

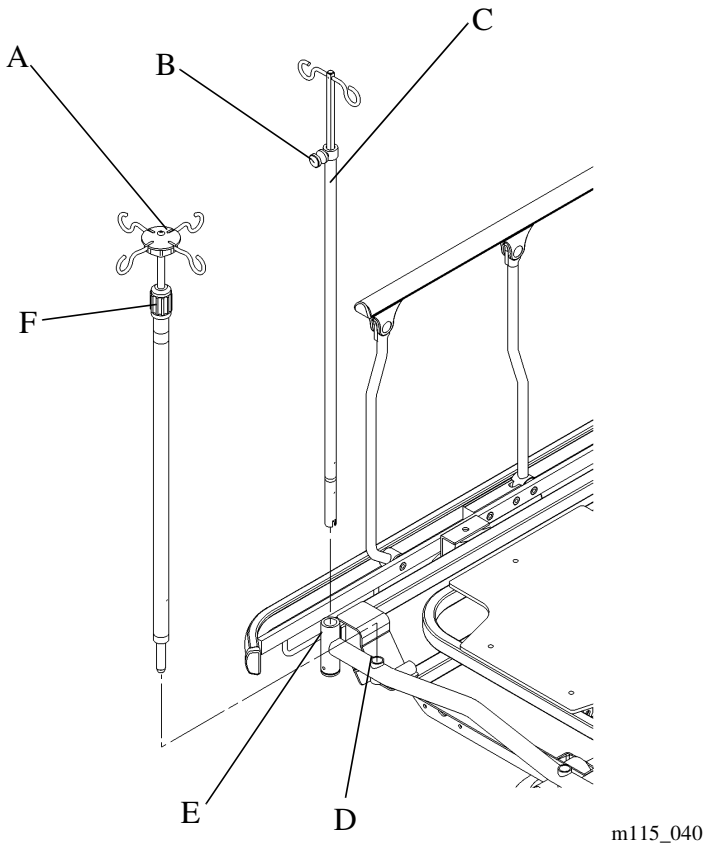
Table 7-1. Accessories List *(cont'd.)*

Product Number	Description
P265	Placenta basin
P35745AT	Telescoping Calf supports
P7915AT	Integrated fiber optic exam light
P4120CT*	Headboard assembly
98V235	Steering Plus™ Steering System Field Upgrade

7.1 Infusion Support System (ISS) Transfer Pole

The ISS transfer pole (A) mounts in the sockets (D) located at each corner of the stretcher (see figure 7-1 on page 7-7). The ISS transfer pole can also be mounted in the IV socket by using the ISS socket adapter.

Figure 7-1. IV Pole and ISS Pole



Installation

1. To extend the upper portion of the ISS pole (A), turn the black collar (F) counterclockwise, and manually raise the upper section of the pole.

2. Lock the pole in place by turning the black collar (F) clockwise until it stops.

3. To lower the ISS pole, grasp the upper section of the pole, turn the black collar (F) counterclockwise, and manually lower the pole.

7.2 IV Pole

The IV pole (C) mounts in any of the four IV sockets (E) located at each corner of the stretcher.

Installation

1. Put the IV pole (C) in one of the four IV sockets (E), and twist the IV pole clockwise to secure it in place.

2. Extend the IV pole (C) by pulling up on the upper section of the pole until it locks into position.

Removal

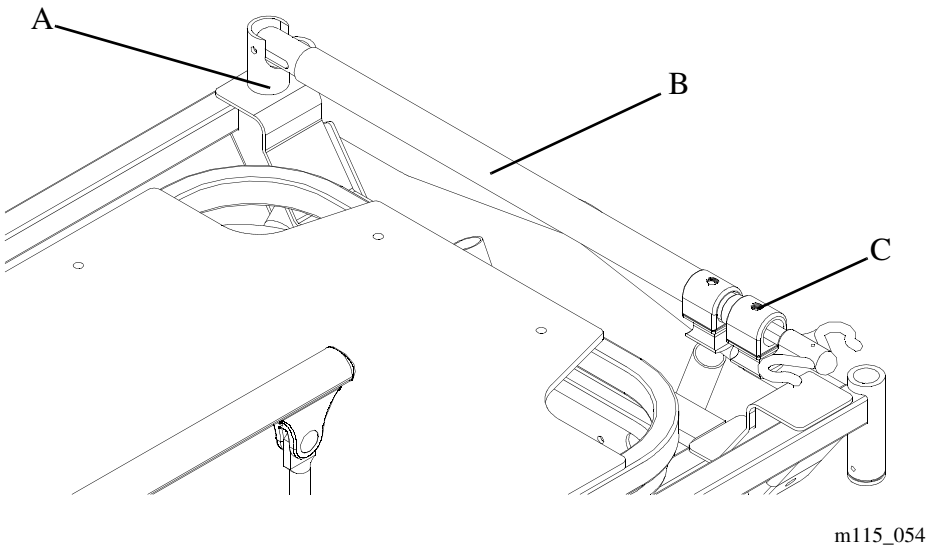
1. Release the IV pole (C) by pulling out on the release knob (B) and manually lowering the pole.

2. Twist the IV pole counterclockwise, and remove it from the IV socket (E).

7.3 Permanent IV Pole

The permanent IV pole mounts either at the head or foot end of the stretcher (see figure 7-2 on page 7-9).

Figure 7-2. Permanent IV Pole



Raising

1. Grasp the stored IV pole (B) and lift up.
2. Before extending the pole, ensure the IV pole is securely positioned in its support bracket (A).
3. To extend the pole, grasp the top section (C) of the pole, and raise it to one of the four positions available. The top middle section will click in place when the desired position is reached.

Lowering

1. While pulling on the release knob, manually lower the top and middle section of the IV pole until it is fully collapsed.
2. Once fully lowered, lift and lower the IV pole.
3. Store the IV pole on the pin located on the upper frame.

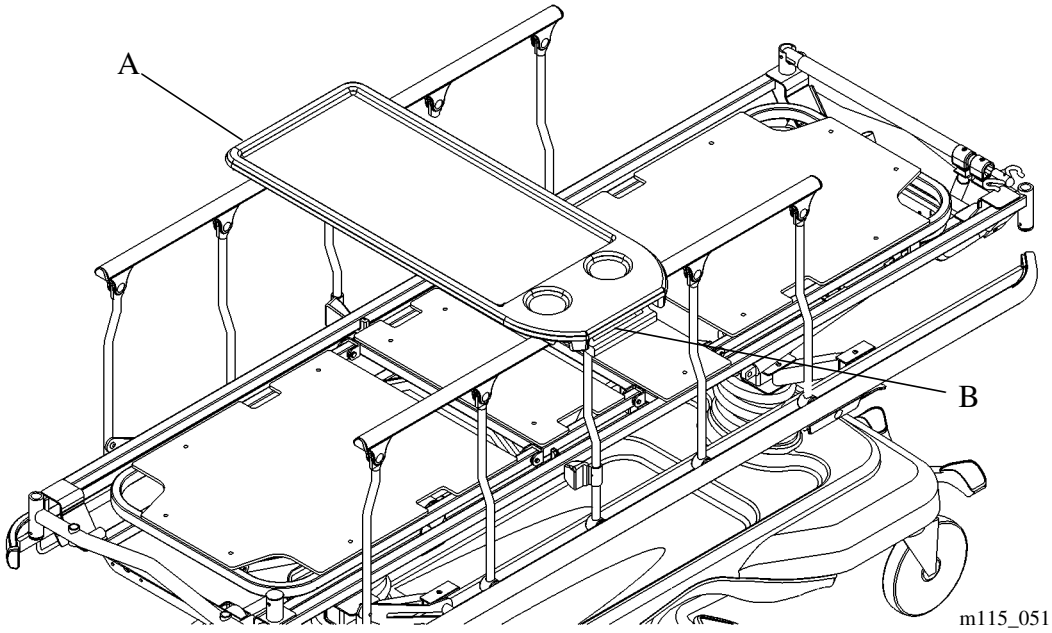
7.4 Patient Tray

The patient tray mounts on the top of the siderails when they are in the up and locked position. When properly installed, the patient tray can support up to 45 pounds.

Installation

1. Put the siderails in the up and locked position (see figure 7-3 on page 7-10).

Figure 7-3. Patient Tray Installation



2. Slide the stationary hook (A) end of the tray on to one of the siderail top rails.

3. Rotate the handle end (B) of the tray down toward the other siderail until the handle snaps over the top of the siderail.

Removal

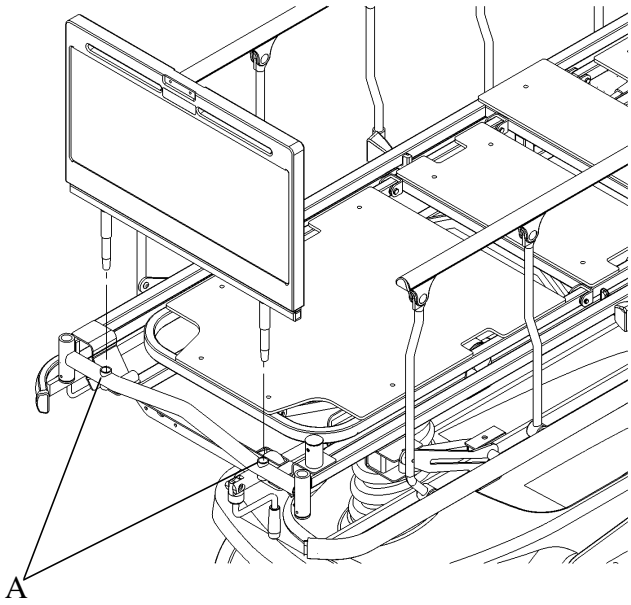
1. Pull up on the handle (B), releasing one side of the tray from the top of the siderail.

2. Lift the tray off of the siderails.

7.5 Footboard

The footboard mounts in the ISS sockets located at the foot end of the stretcher (see figure 7-4 on page 7-11). The footboard can also be used as a stretcher extension.

Figure 7-4. Footboard



m115_052

Using the Footboard as a Stretcher Extender

Installation

The footboard can be used as a 15" stretcher extender.

1. Remove the footboard assembly from its mounting sockets.
2. Position the footboard horizontally, and slide its mounting posts into the extender brackets (A) located under the sleep surface.
3. Push the footboard toward the head end until it is fully engaged.

Removal

Perform installation steps 1 through 3 in reverse order.

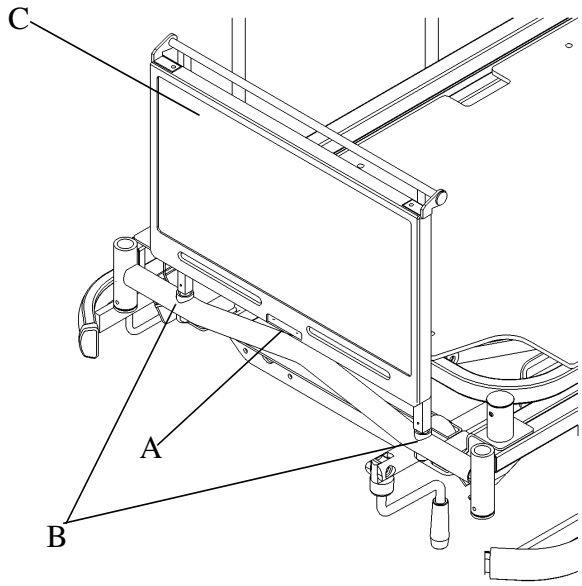
7.6 Convertible Footboard

The convertible footboard can be used as a footboard, a transport shelf, or as a 15" stretcher extender. When properly installed, it can hold up to 45 pounds.

Installing as a Footboard

Put the convertible footboard (C) in the ISS mounting sockets (B) located at the foot end of the stretcher (see figure 7-5 on page 7-12).

Figure 7-5. Convertible Footboard



m115_046

Installing as a Transport Shelf/Charting Area

WARNING:
Before you put the footboard into the transport shelf position, remove the chart holder from the convertible footboard. Injury to the patient could occur.

1. Release the convertible footboard (C) by lifting up on the LIFT latch (A) located on the lower center of the convertible footboard.

2. Grasp the lower portion of the convertible footboard, and pivot up toward the head of the stretcher until the shelf is in a horizontal position.

3. Use the securing straps to tie down equipment during transport.

Storing

1. Grasp the top of the transport shelf and swing back toward the foot end of the stretcher.

2. Ensure the convertible footboard is securely locked by tugging gently on the shelf.

Installing as a Foot Extender

1. Remove the convertible footboard (C) from the ISS mounting sockets (B).

2. Position the convertible footboard horizontally. Make sure the LIFT latch (A) side of the convertible footboard is facing up, and the mounting posts are pointed toward the head end of the stretcher.

3. Slide the convertible footboard mounting posts into the extender brackets located under the sleep surface.

4. Push the convertible footboard toward the head end until it is fully engaged.

Removal

1. Pull the convertible footboard out of the extender brackets.

2. Swing back to a vertical position and mount into the ISS sockets (B).

7.7 IV Transporter

The IV transporter attaches to the base of the stretcher and allows for the transport of a portable IV pole without the assistance of the caregiver.

The IV transporter can be mounted on either the right or left side of the stretcher at the head end only.

Installation

Tools required:	Ratchet	¾" socket
	Torque wrench 0-250 in-lb	Drill
	¼" drill bit	7/8" drill bit
	Retaining ring removal/installation tool	

1. Decide on which side of the stretcher you will mount the transporter.

NOTE:
There are dimples on the inside surface on both sides of the head end of the shroud. These identify the proper location for the transporter hole.

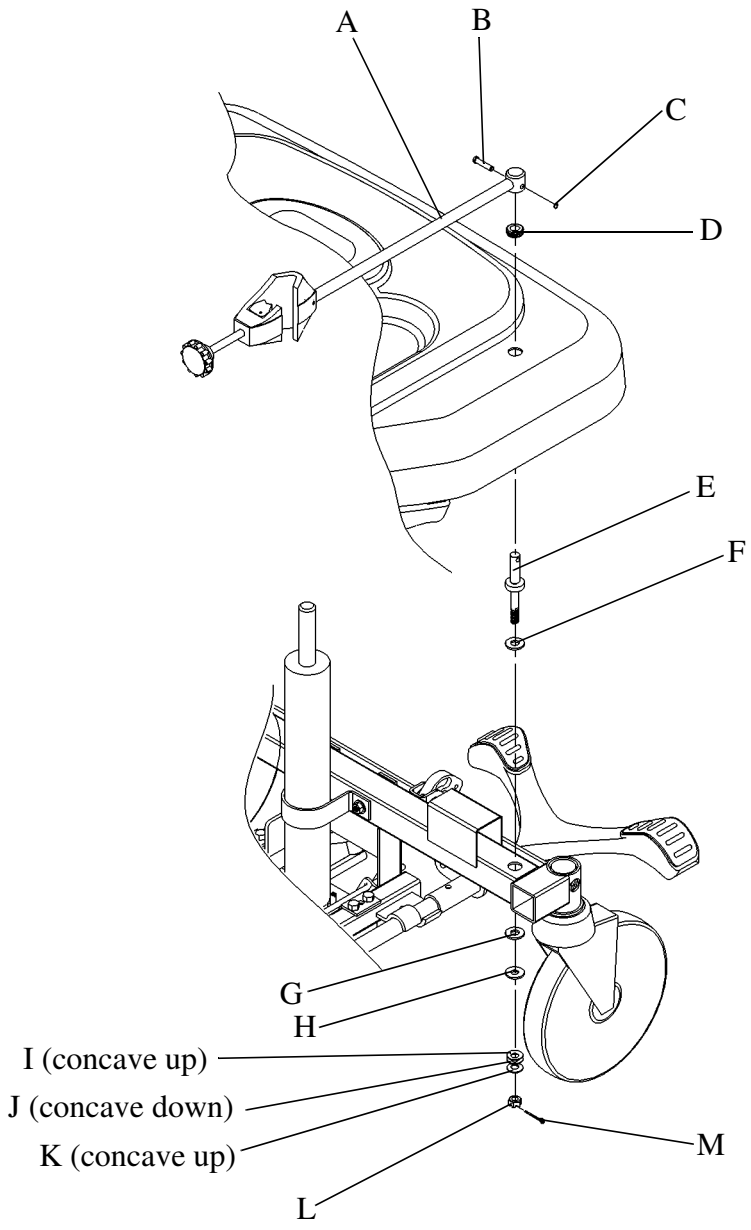
2. Lift the shroud, and locate the dimple at the head end of the shroud that corresponds to the location where you want to mount the transporter.

3. Using the drill and the ¼" drill bit, drill a ¼" (6.4 mm) pilot hole through the center of the dimple.

4. Using the drill with the 7/8" drill bit and using the pilot hole as a guide, carefully drill a 7/8" (22.2 mm) hole through the shroud.

5. Install the rubber grommet (D) into the hole you just drilled in the shroud (see figure 7-6 on page 7-15).

Figure 7-6. IV Transporter Installation



6. Put one Oilite® bushing (F) on the threaded end of the tow bar post weldment (E).

7. Install threaded end of tow bar post weldment (E) through the hole in the base frame.

8. Using the ratchet and the ¾" socket, install one Oilite® bushing (G), D-washer (H), one belleville washer (I) (concave up), one belleville washer (J) (concave down), one belleville washer (K) (concave up), and castle nut (L) to secure the tow bar post weldment (E) to the base frame.

9. Using the torque wrench, torque the castle nut (L) to 200 in-lb (22.6 N·m).

10. Swing the arm through a full range of motion. Make sure the tow arm does not make a squeaking noise. If you hear a squeaking noise, loosen the castle nut until the squeaking stops.

11. Install a portable IV pole into the transporter. Make sure the transporter arm stays in position when the stretcher is moved.

12. See if the slot in the castle nut (L) aligns with the hole in the tow bar post weldment (E). If the hole and slot do not line up, tighten or loosen the castle nut (L) just enough to align the slots.

13. Insert the cotter pin (M) through the castle nut (L) and the tow bar post weldment (E).

14. Bend the cotter pin (M) around the castle nut (L).

15. Put the tow arm assembly (A) over the tow bar post weldment (E), and insert the headed pin (B) through the tow arm assembly (A) and tow bar post weldment (E).

16. Install the retaining ring (C) to secure the headed pin (B).

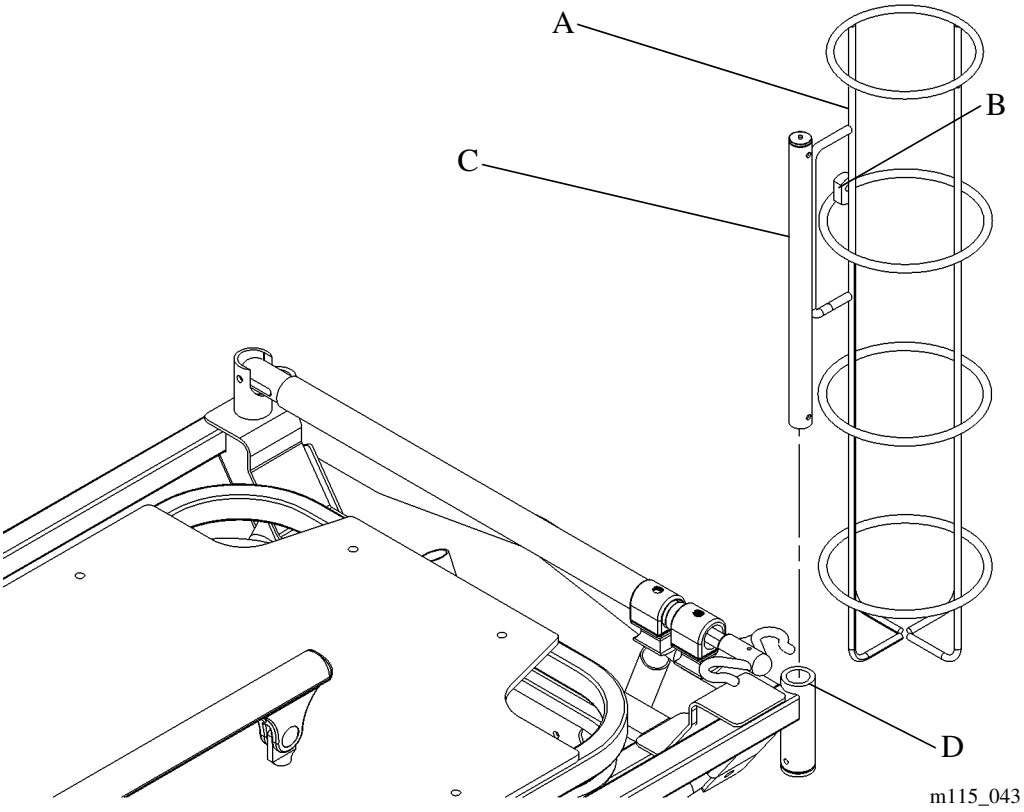
7.8 Oxygen Tank Holder

The oxygen tank holder will hold an E size tank.

Installation

1. Place the oxygen tank holder's mounting bar (C) into one of the four IV sockets (D) located at all four corners of the stretcher (see figure 7-7 on page 7-17).

Figure 7-7. Oxygen Tank Holder



2. Place the oxygen tank in the oxygen tank holder (A).

3. Secure the oxygen tank in the oxygen tank holder (A) by turning the thumbscrew (B) clockwise until it stops.

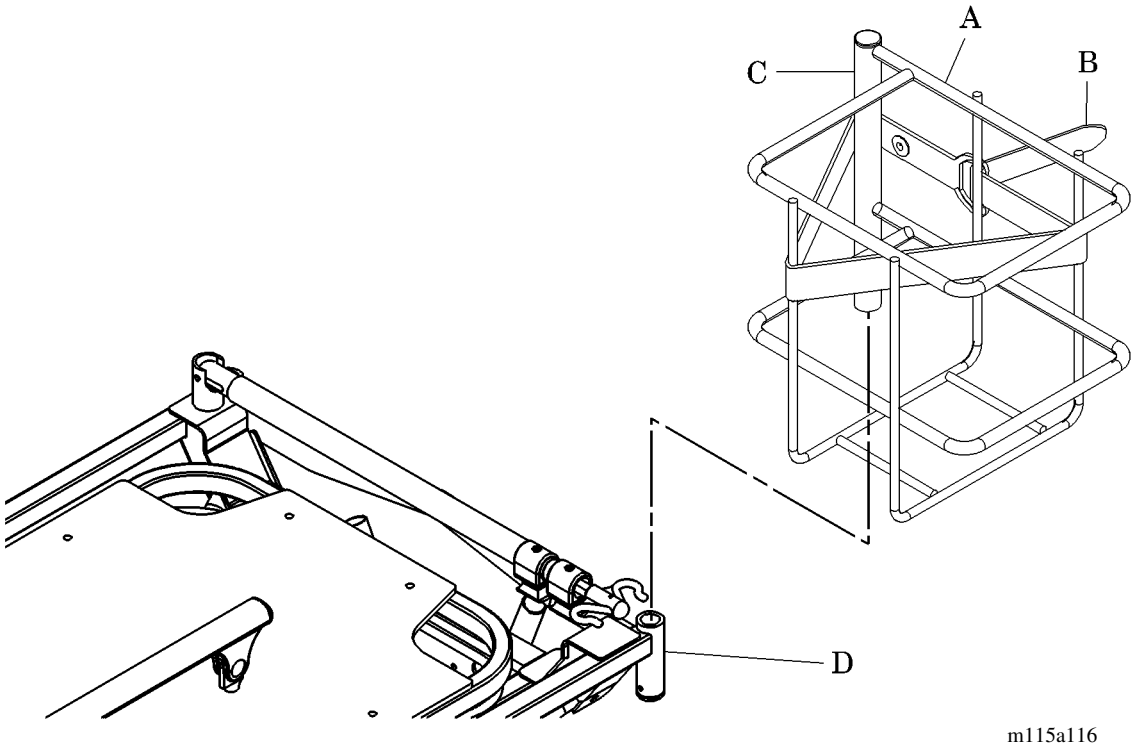
7.9 Liquid Oxygen Tank Holder

The liquid oxygen tank holder will hold a tank varying in different sizes in any one of the four IV sockets located at all four corners of the stretcher.

Installation

1. Place the liquid oxygen tank holder's mounting bar (C) into one of the four IV sockets (D) (see figure 7-8 on page 7-18).

Figure 7-8. Liquid Oxygen Tank Holder



2. Place the oxygen tank in the liquid oxygen tank holder (A).

3. Securely tighten the Velcro®[1] strap (B) around the oxygen tank.

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

7.10 Push Handles

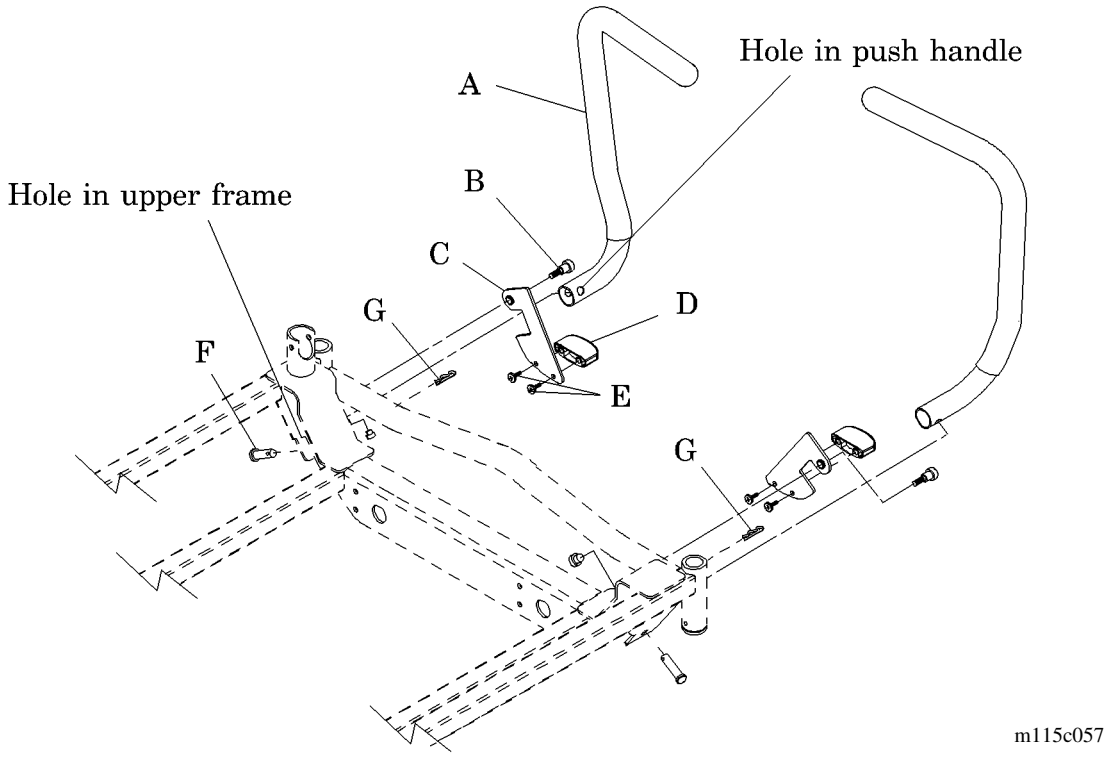
The push handles are located at the head end of the stretcher. They increase the caregiver's control over the stretcher during transport. The push handles fold down and out of the way when not in use.

Installation

Tools required:	Ratchet	3/16" hex head bit
	Torque wrench 0-250 in-lb	Phillips head screwdriver

1. Using the phillips head screwdriver, install two screws (E) to secure the push release handle (D) to the right-hand push handle latch assembly (C) (see figure 7-9 on page 7-19).

Figure 7-9. Push Handle Installation



2. Using the ratchet and 3/16" hex head bit, install the shoulder screw (B) through the right-hand push handle latch assembly (C) and into the upper frame.

3. Using the torque wrench, torque the shoulder screw (B) to 100-140 in-lb (11.3-15.8 N·m).

4. Put the right push handle tube (A) in position on the upper frame, aligning the holes in the right push handle tube (A) with the holes in the bracket on the upper frame.

5. Install the clevis pin (F) and hitch pin (G) through the bracket on the upper frame and the right push handle tube (A).

6. Repeat steps 1 through 5 for the left-hand push handle.

7.11 Chart Holder

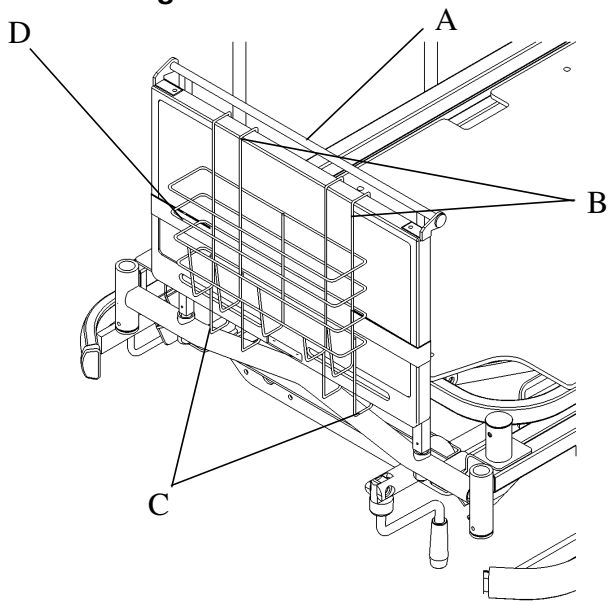
The chart holder mounts on the footboard or the convertible footboard.

Installation

WARNING:
Before you put the footboard into the transport shelf position, remove the chart holder from the convertible footboard. Injury to the patient could occur.

1. Slide the bottom wire hooks (C) of the chart holder (D) under the bottom of the convertible footboard (A) and lift up (see figure 7-10 on page 7-21).

Figure 7-10. Chart Holder



2. Slide the top wire hooks (B) of the chart holder over the top of the convertible footboard.

3. Push down to lock the chart holder into position.

Removal

Perform installation steps 1 and 2 in reverse order.

7.12 Security Straps

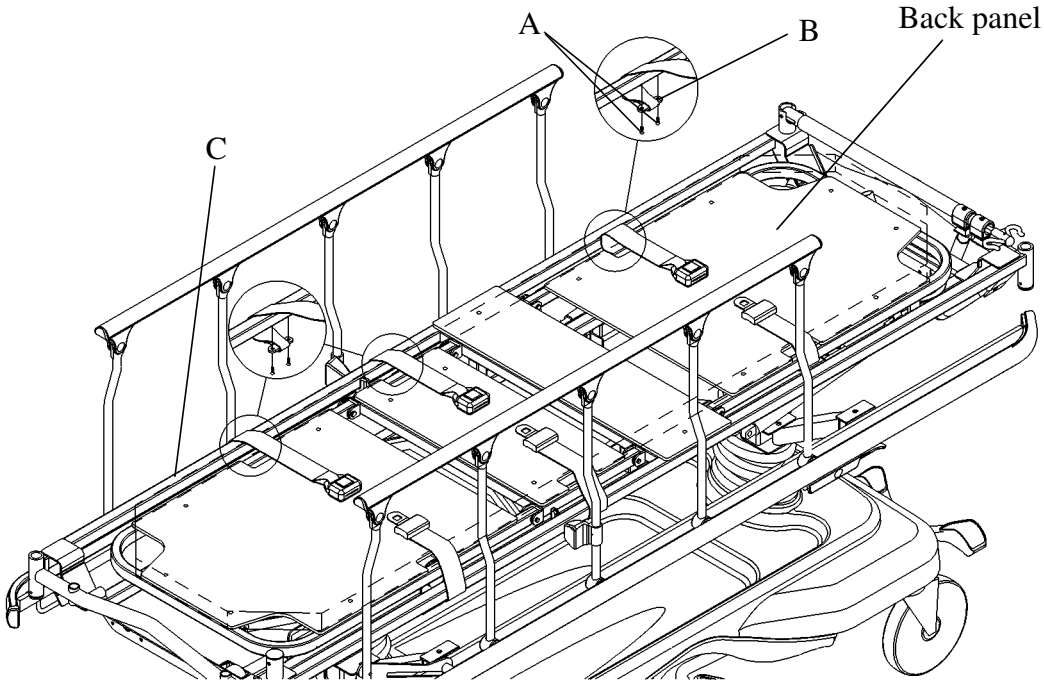
The stretcher has three security strap attachment areas. They are located at the back, thigh, and foot sections. The straps store under the mattress when not in use.

Installation

Tools required: Phillips head screwdriver

1. Locate the holes on the underside of the upper frame outside weldment (C) (see figure 7-11 on page 7-22).

Figure 7-11. Security Straps



2. Install the two screws (A) through the security strap bracket (B) and into the holes in the upper frame using the phillips head screwdriver.

3. Repeat steps 1 and 2 for all remaining security straps.

Removal

Perform installation steps 1 through 3 in reverse order.

7.13 Utility Tray

The TranStar® Procedural Stretcher Utility Tray is used for the placement of items or books for the benefit of the patient.

Installation

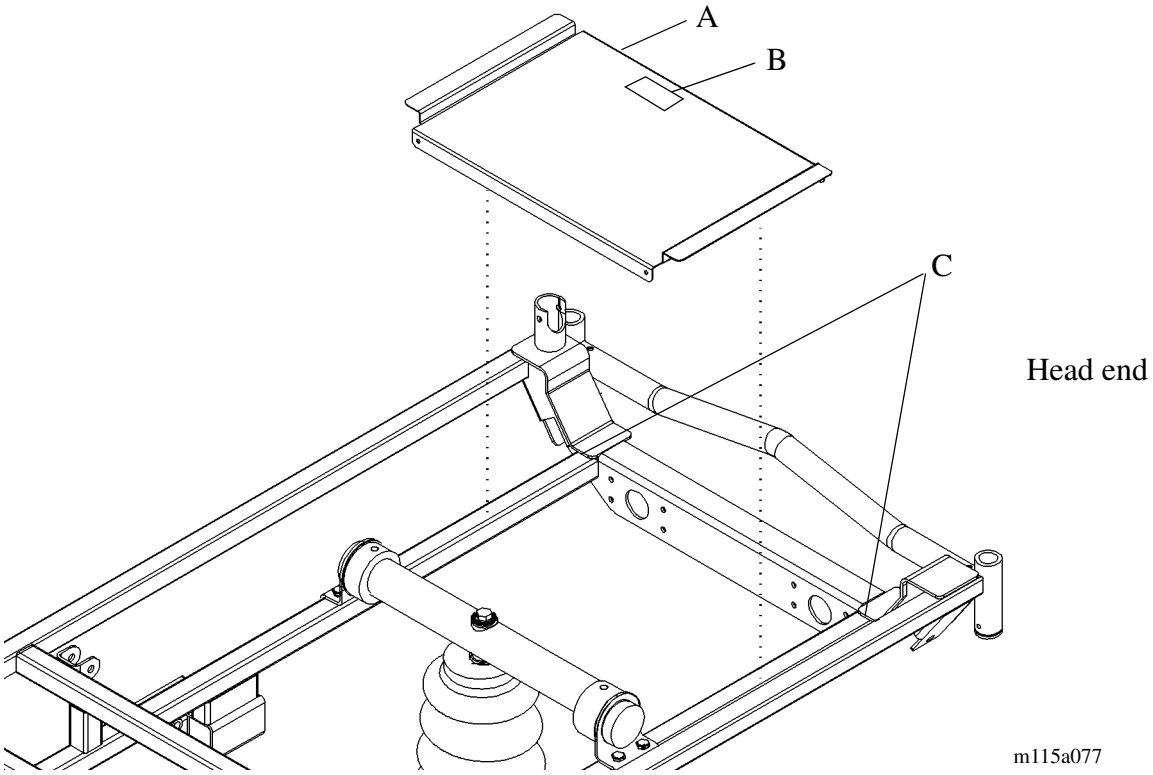
1. Raise the head section to the high position.
2. Make sure the frame surface is clean and dry.
3. Remove the paper from the adhesive strips located on the bottom side of the utility tray.
4. Position the tray (A) against the flange (C) on the upper frame with the adhesive facing down and the weight restriction label (B) facing toward the head end of the stretcher (see figure 7-12 on page 7-24).

NOTE:
If the tray is not placed all the way to the head end, it may interfere with the Trendelenburg function of the stretcher.

Removal

Pull up on the tray with sufficient force to break the adhesive bond.

Figure 7-12. Utility Tray Installation



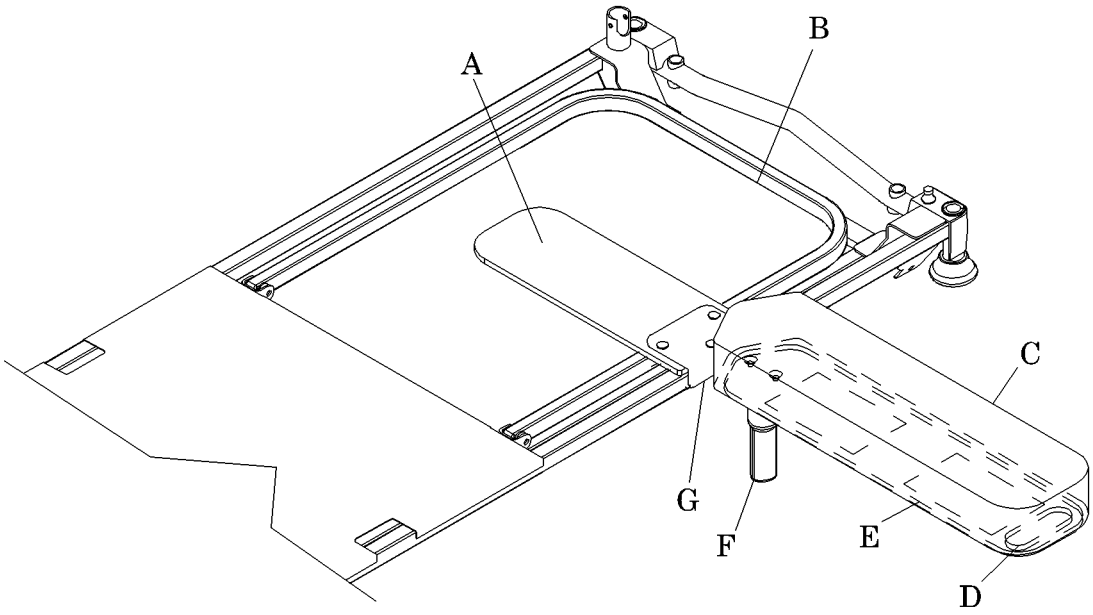
7.14 Armboard

The armboard is slid under the stretcher mattress while the patient occupies the stretcher and is used as a support for the patient's arm to rest on.

Installation

1. Slide the mattress pad (C) over the upper armboard panel (E) until the mattress pad fits the contour of the panel (see figure 7-13 on page 7-25).

Figure 7-13. Armboard



m115b126

2. Rotate the upper armboard panel (E) 180° away from the lower armboard panel (A), and securely tighten the handle lock mechanism (F) by rotating it in a clockwise direction (as indicated on the mechanism housing).

3. Slide the lower armboard panel (A) between the stretcher mattress and the head panel (B) until the armboard stop tab (G) reaches the upper frame tube.

4. With the lower armboard panel (A) under the stretcher mattress, loosen the handle lock mechanism (F) by rotating it in a counterclockwise direction (as indicated on the mechanism housing).

5. Using the upper armboard panel slot cutout (D) as a handle, position the upper armboard panel (E) at the desired angle.

6. Tighten the handle lock mechanism (F) by rotating it in a clockwise direction (as indicated on the mechanism housing).

7. To reposition the upper armboard panel (E), repeat step 4 through step 6 above.

7.15 Upright Chest Cassette Holder (Old Style)

The TranStar® Trauma/OB/GYN Stretcher Upright Chest Cassette Holder attaches to the back section of the stretcher and allows for x-ray shots of the patient's chest/back. It will support a cassette with a maximum weight of 12 lb (5 kg).

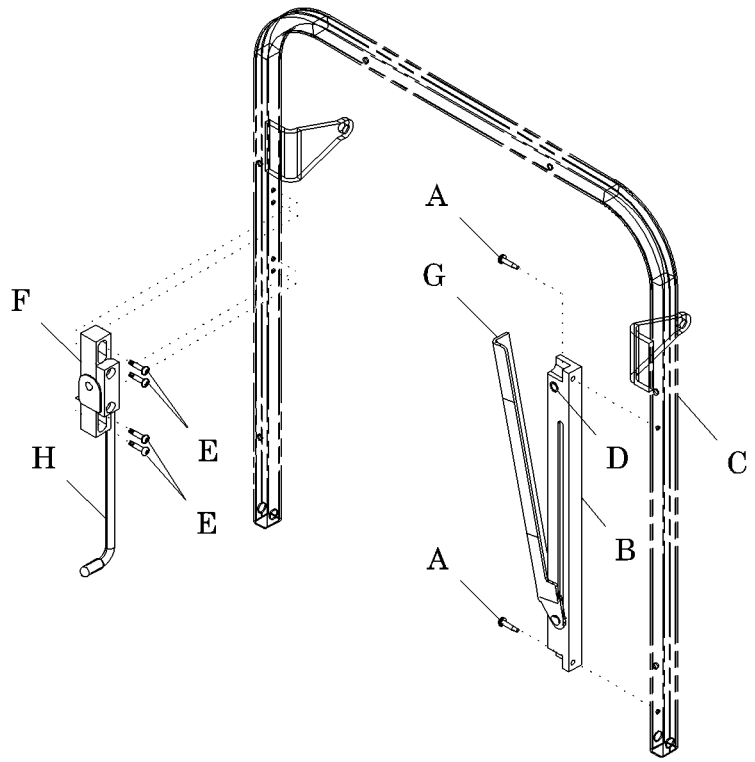
Installation

Tools required: Ratchet, Screwdriver, T25 Torx®[1] head bit

1. Raise the head section to the high position.

2. Using the ratchet and T25 Torx® bit, install the screws (A) that secure the slider bracket (B) to the head section weldment (C) (see figure 7-14 on page 7-27).

Figure 7-14. Upright Chest Cassette Holder (Old Style)



1. Torx® is a registered trademark of Textron, Inc.

3. Using the screwdriver, adjust the ball plunger (D) in the slider bracket (B) until the ball is approximately 1/8" (3.2 mm) from the back section. Make sure the ball plunger supports the cassette support weldment in the stored position with limited force being applied. Adjust the ball plunger if required.

4. Using the ratchet and T25 Torx® bit, install the screws (E) that secure the cassette keeper bracket (F).

5. The upright chest cassette holder is ready for use. Pull the cassette support weldment (G) down from the stored position. Slightly lift up on the cassette support weldment to change position along the slider bracket.

6. Place the cassette on the cassette support weldment (G), and slide the cassette support weldment and cassette up to the desired position.

7. Rotate the cassette keeper weldment (H) to secure the cassette against the back section.

7.16 Upright Chest Cassette Holder—P279AT (New Style)

The TranStar® Trauma/OB/GYN Stretcher Upright Chest Cassette Holder attaches to the back section of the stretcher and allows for x-ray shots of the patient's chest/back. It will support a cassette with a maximum weight of 12 lb (5 kg).

Installation

Tools required:	Ratchet	T25 Torx®[1] head bit
	Screwdriver	Phillips head screwdriver

1. Raise the head section to the high position.

2. Using the ratchet and T25 Torx® head bit, install the screws (A) that secure the slider bracket (B) to the head section weldment (C) (see figure 7-15 on page 7-30).

3. Using a screwdriver, adjust the ball plunger (D) in the slider bracket (B) until the ball is approximately 1/8" (3.2 mm) from the back section.

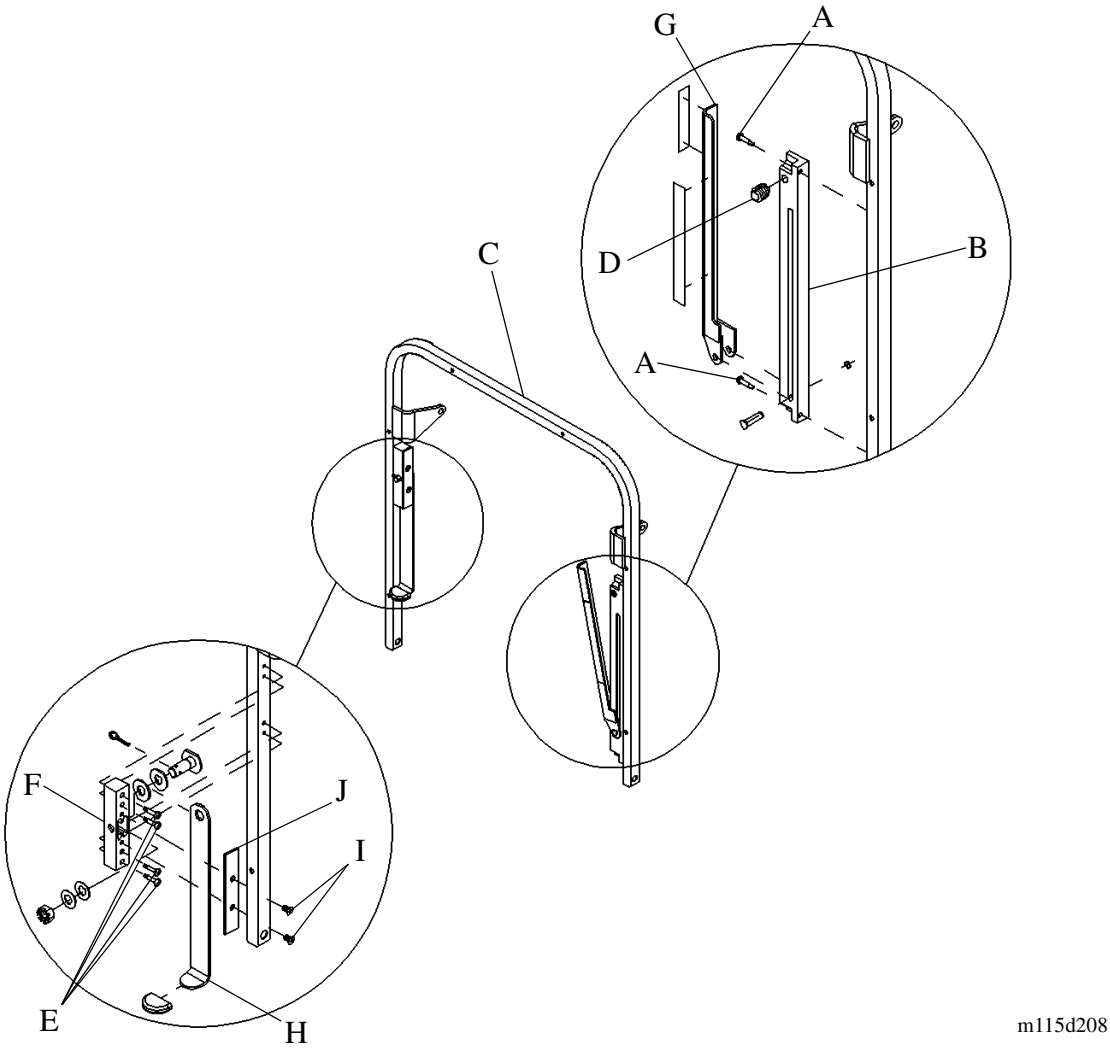
NOTE:
Make sure the ball plunger (D) supports the cassette support weldment (G) in the stored position with limited force being applied. Adjust the ball plunger (D) if required. See the section titled "Adjustment" on page 7-31.

4. Using the ratchet and T25 Torx® head bit, install the four screws (E) that secure the cassette keeper bracket (F) to the head section weldment (C).

5. Using the phillips head screwdriver, install the two screws (I) that secure the cover plate (J) to the cassette keeper bracket (F). The upright chest cassette holder is ready for use.

1. Torx® is a registered trademark of Textron, Inc.

Figure 7-15. Upright Chest Cassette Holder Assembly (New Style)



6. Pull the cassette support weldment (G) down from the stored position.

7. Slightly lift up on the cassette support weldment (G) to change position along the slider bracket (F).

8. Place the cassette on the cassette support weldment (G), and slide the cassette support weldment (G) and cassette up to the desired position.

9. Rotate the cassette keeper weldment (H) to secure the cassette against the back section.

10. Ensure the back section operates properly and that the upright chest cassette holder assembly does not create an obstruction or restrict the movement of the back section.

Removal

Reverse the installation procedure to remove the upright chest cassette holder assembly from the stretcher.

Adjustment

To adjust the ball plunger (D), perform the following:

1. Using a screwdriver, turn the ball plunger (D) ¼ turn clockwise if the cassette support weldment is not held securely enough.

2. Test the ball plunger (D), and ensure that it can support the cassette support weldment (G) in the stored position.

3. If needed, keep adjusting the ball plunger (D) ¼ turn clockwise until it can support the cassette support weldment (G).

Cleaning

Refer to the section titled “Cleaning and Care” on page 6-3 for proper cleaning procedures.

7.17 Lateral Cassette Holder

The TranStar® Trauma Stretcher Lateral Cassette Holder will rest on the longitudinal upper frame tube on the side of the stretcher. It allows for side view x-ray shots of the patient while on the stretcher. It will support a cassette with a maximum weight of 12 lb (5 kg).

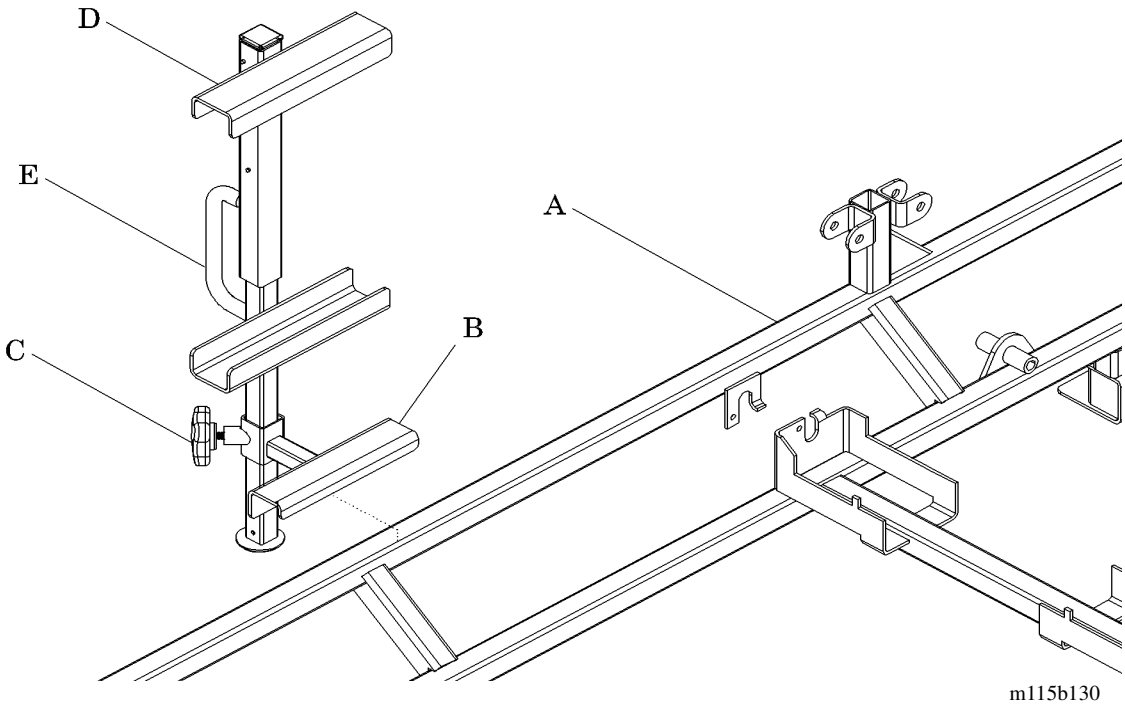
Installation

1. Put the siderails down and in the stored position.

NOTE:
The siderail is not usable when the lateral cassette holder is in position.

2. Grasp the handle (E), and put the lateral cassette holder (B) in its proper position on the longitudinal upper frame tube (A) (see figure 7-16 on page 7-32).

Figure 7-16. Lateral Cassette Holder



3. Raise the upper portion of the lateral cassette holder (D) enough to place the cassette in. Place the cassette on the lateral cassette holder, and adjust the height if needed using the adjustment knob (C). If necessary, use the handle (E) to change the location of the lateral cassette holder.

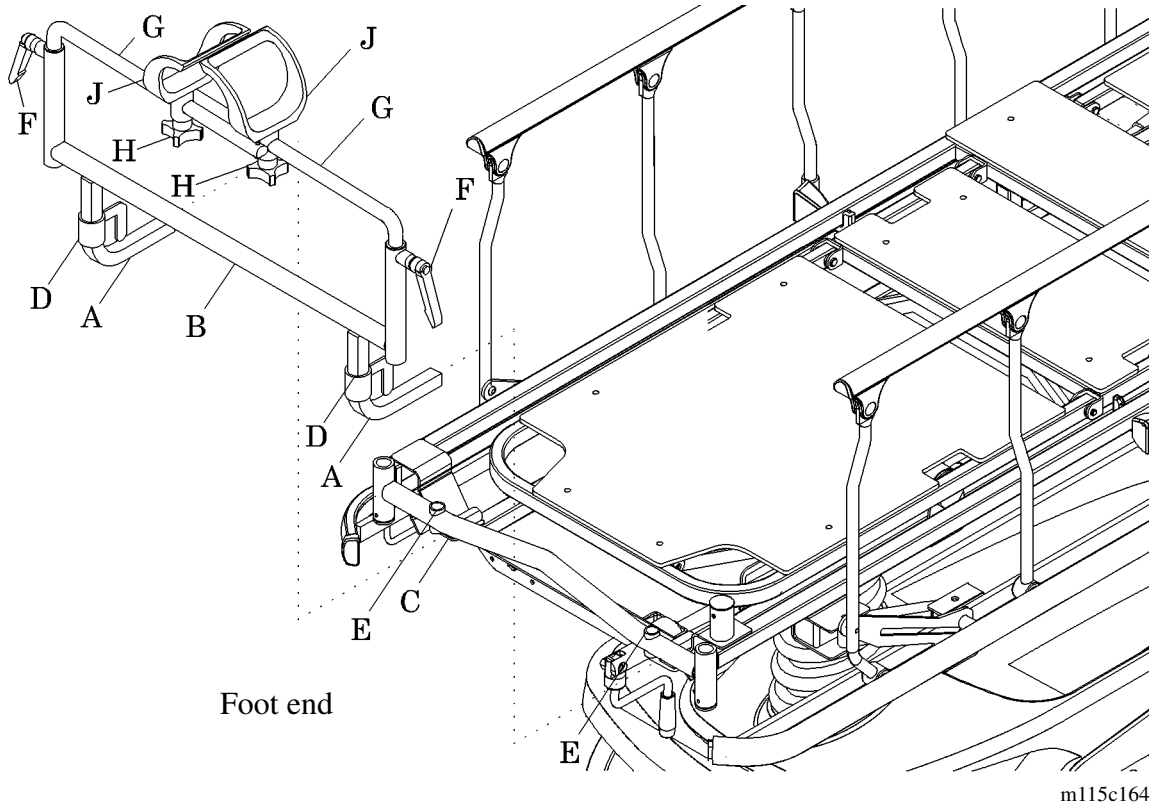
7.18 Ankle Stirrups

The TranStar® Stretcher Ankle Stirrups will attach to the foot end of the stretcher (that has the square mounting brackets) for use during gynecological exams.

Installation

1. Position the mounting posts (A) of the ankle stirrup assembly (B) against the extender brackets (C) located under the stretcher's sleep surface at the foot section (see figure 7-17 on page 7-33).

Figure 7-17. Ankle Stirrups Installation



2. Hold the locking tabs (D) up, and slide the mounting posts (A) into the extender brackets (C).

3. Push the ankle stirrup assembly (B) against the foot section until the locking tabs (D) can be inserted into the mounting sockets (E).

4. Insert the locking tabs (D) into the mounting sockets (E).

5. Adjust the ankle stirrups by performing the following steps:
   a. Loosen either handle (F) by rotating it counterclockwise, and rotate the support bar (G) to the desired angle.
   b. Tighten the handle (F) by rotating it clockwise.
   c. Loosen the thumb knob (H) by rotating it counterclockwise, and move the stirrup weldment (J) to the desired location along the support bar (G).
   d. Tighten the thumb knob (H) by rotating it clockwise.
   e. Adjust the support bar (G) angle, if necessary, by repeating step a and step b.
   f. Adjust the stirrup weldment (J) position, if necessary, by repeating step c and step d.
   g. Repeat step a through step f for the other stirrup.

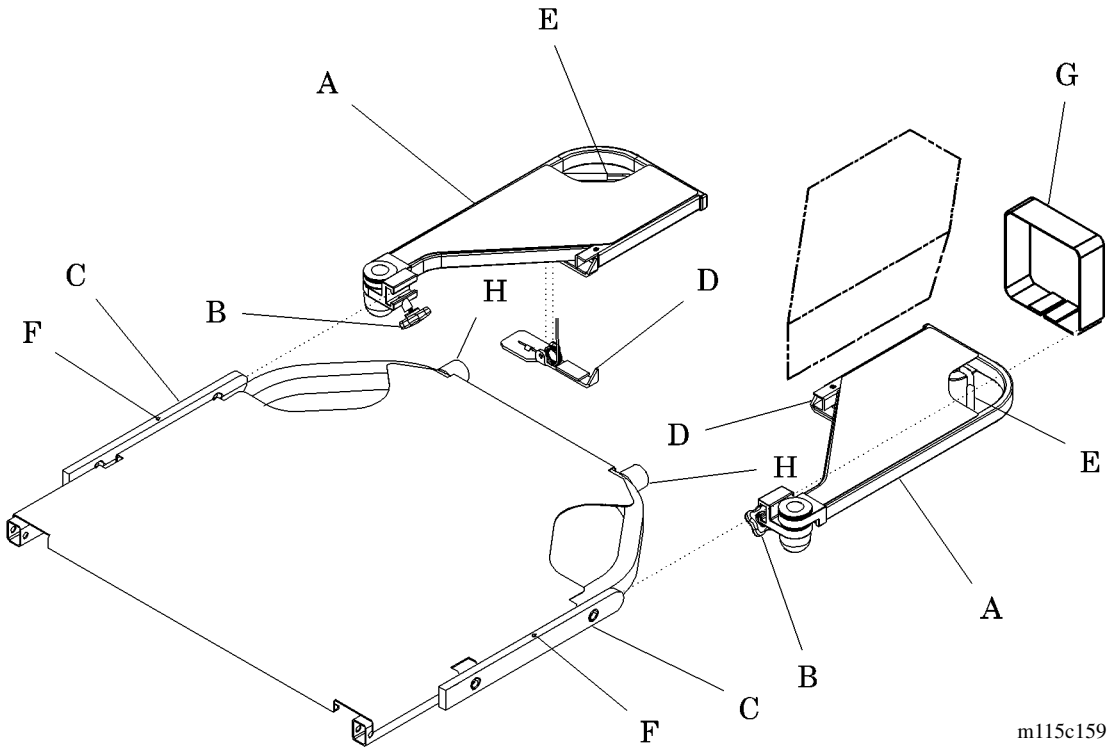
7.19 PACU Extender

The PACU Extenders attach to the surgical rail along the side of the back section. They can be positioned in the extender position (around the head section) to allow for back section articulation, or in the armboard position.

Installing the PACU Extender

1. Loosen the knob (B) on the PACU extender (A) (see figure 7-18 on page 7-35).

Figure 7-18. PACU Extender



2. Slide the PACU extender (A) on the head end of the surgical rail (C) until it rests against the stop (F). Make sure you start from the head end of the surgical rail and slide towards the foot end.

NOTE:
The PACU extender is left and right-hand specific. Make sure the correct PACU extender is installed on the appropriate side.

3. Tighten the knob (B) to secure the PACU extender (A) to the stretcher.

4. If it is not already in position, make sure the end of the release handle (D), located underneath the PACU extender (A), is latched to the back section (H) of the stretcher. If necessary, rotate the PACU extender (A) until this is done.

5. If it is necessary to raise the back section of the stretcher while the PACU extender (A) is installed, squeeze the back section release handle (E) until the desired position is reached, then release the handle.

NOTE:
Each PACU extender is equipped with a back section release handle located in the corner. The handle on either PACU extender will release the back section.

Using the PACU Extender as an Armboard

WARNING:
Do not place any other part of the body or any equipment on the PACU extender, or apply any unnecessary forces when it is in the armboard position. Damage to equipment and personal injury could occur.

1. If necessary, lower the siderail.

2. Push upward on the release handle (D) located underneath the PACU extender (A).

3. Rotate the PACU extender (A) to the desired armboard position.

NOTE:
Some force will be necessary to rotate the PACU extender after the release handle has been released.

4. Place the patient's arm in position, and secure it with the Velcro®[1] strap (G).

Returning the PACU Extender from the Armboard Position to Extender

1. Remove the Velcro® strap (G) from the patient's arm.

2. Move the patient's arm off of the PACU extender (A).

3. Rotate the PACU extender (A) until the release handle (D) is latched to the back section (H) of the stretcher.

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

7.20 Superior Wrist Rest

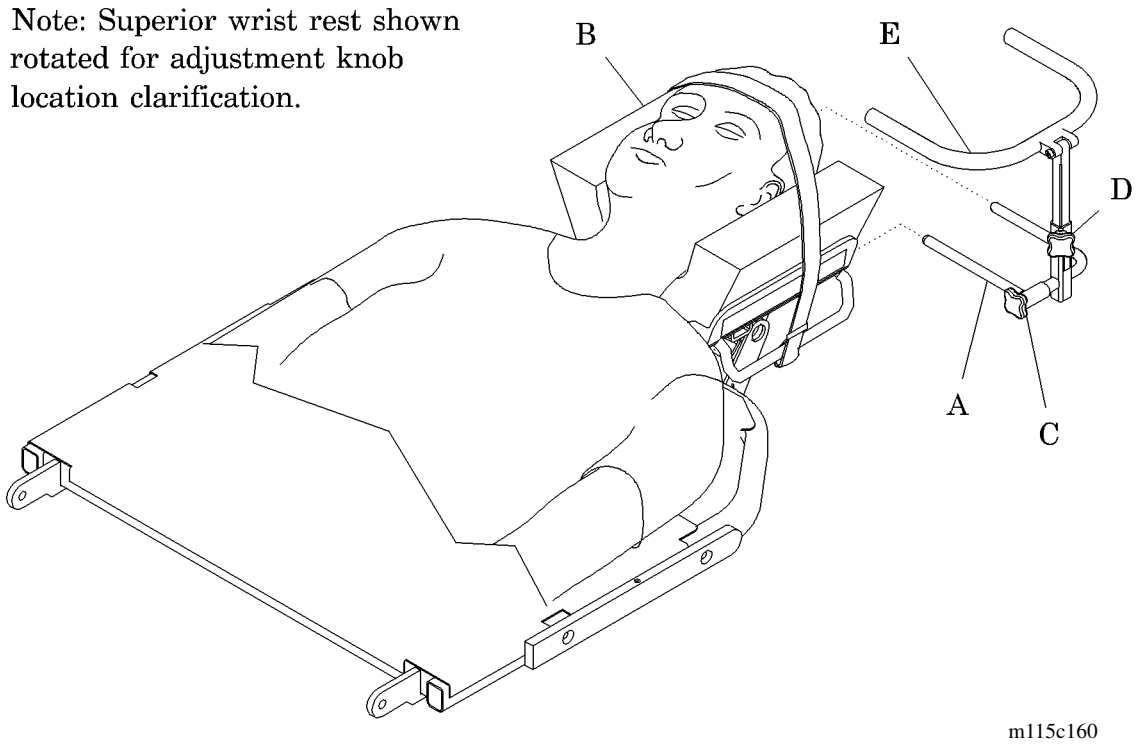
The Superior Wrist Rest attaches to the top of the articulating headrest, and is used to support the caregiver's wrist during the procedure.

Installation

WARNING:
Do not transport the stretcher with the superior wrist rest installed. Remove the superior wrist rest before you transport the stretcher. Damage to equipment and personal injury could occur.

1. Slide the mounting bar (A) into the two slots on the head end of the head rest (B) (see figure 7-19 on page 7-37).

Figure 7-19. Superior Wrist Rest Installation



2. Tighten the mounting knob (C).

3. Loosen the height adjustment knob (D).

4. Place the superior wrist rest (E) in a satisfactory position, and tighten the height adjustment knob (D).

NOTE:
The top of the superior wrist rest can be rotated away from the patient for increased patient access when required.

Removal

1. Loosen the mounting knob (C).

2. Remove the superior wrist rest (E) from the headrest (B).

7.21 Temporal Wrist Rest

The Temporal Wrist Rest attaches to either side of the articulating headrest, and is used to support the caregiver's wrist during the procedure.

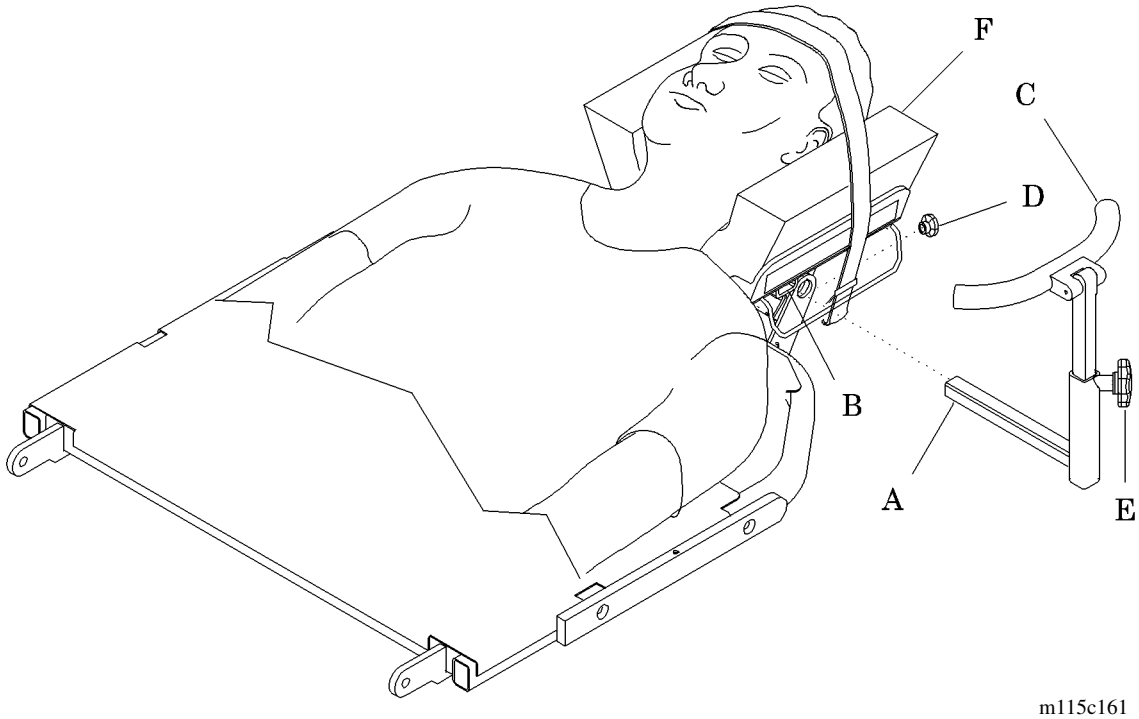
Installation

WARNING:
Do not transport the stretcher with the temporal wrist rest installed. Remove the temporal wrist rest before you transport the stretcher. Damage to equipment and personal injury could occur.

1. Slide the mounting bar (A) into the slot (B) on the side of the headrest (F) (see figure 7-20 on page 7-39).

NOTE:
The temporal wrist rest (C) can be installed on either side of the headrest (F).

Figure 7-20. Temporal Wrist Rest Installation



2. Tighten the mounting knob (D) located under the headrest (F).

3. Loosen the height adjustment knob (E).

4. Place the temporal wrist rest (C) in a satisfactory position, and tighten the height adjustment knob (E).

NOTE:
The top of the temporal wrist rest can be rotated away from the patient for increased patient access when required.

Removal

1. Loosen the mounting knob (D) located under the headrest (F).

2. Remove the temporal wrist rest (C) from the headrest (F).

7.22 Gas Delivery System

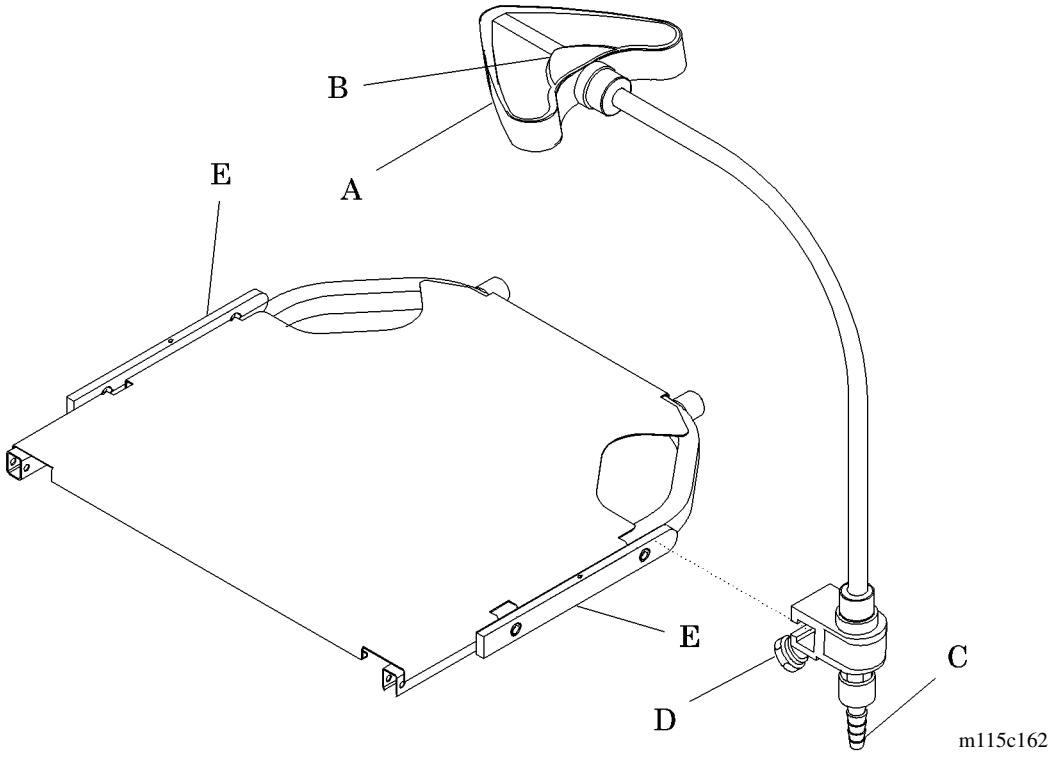
The Gas Delivery System attaches to the surgical rail located on either side of the stretcher, providing gas supply to the patient, and also as a drape support during the procedure.

Installation

Parts required: Clean cloth
Approved hospital disinfectant

1. Loosen the mounting knob (D) on the gas delivery system (see figure 7-21 on page 7-41).

Figure 7-21. Gas Delivery System Installation



2. Slide the gas delivery system on the surgical rail (E).

NOTE:
The gas delivery system can be installed from the head end of the surgical rail if the PACU extender is in the extended mode, or from the foot end of the surgical rail if it is not.

3. Determine the position of the gas delivery system on the surgical rail (E). Tighten the mounting knob (D) when a satisfactory position on the surgical rail is found.

NOTE:
When determining the position of the gas delivery system, consider the following:

- The location of the oxygen supply for the patient, which comes from the hose connector.
- The drape that will go around the patient. The gas delivery system will support the drape to keep it off of the patient's facial area.

4. Install the facility supplied medical gas hose to the hose connector (C) on the gas delivery system.

5. Move the flexible tube to position the gas delivery system in an appropriate location for support of the drapes that go around the patient.

6. Turn the medical gas ON, and check for proper flow.

7. Place the drapes appropriately around the patient and the gas delivery system.

Cleaning

WARNING:
Only facility-authorized personnel should install the gas delivery system. Installation by unauthorized personnel could result in personal injury or equipment damage.

WARNING:
Follow the product manufacturer's instructions when using approved hospital disinfectant. Failure to do so could result in personal injury or equipment damage.

1. Using an approved hospital disinfectant with a clean cloth, clean the gas delivery system as follows:
   a. Immerse the gas delivery cap (B) and deflector (A) in an approved hospital disinfectant according to the manufacturer's instructions.
   b. Steam autoclave the gas delivery cap (B).
   c. The gas delivery cap (B) and deflector (A) screw into the end of the supply tube. If needed, unscrew these from the supply tube to clean, and then attach thereafter.

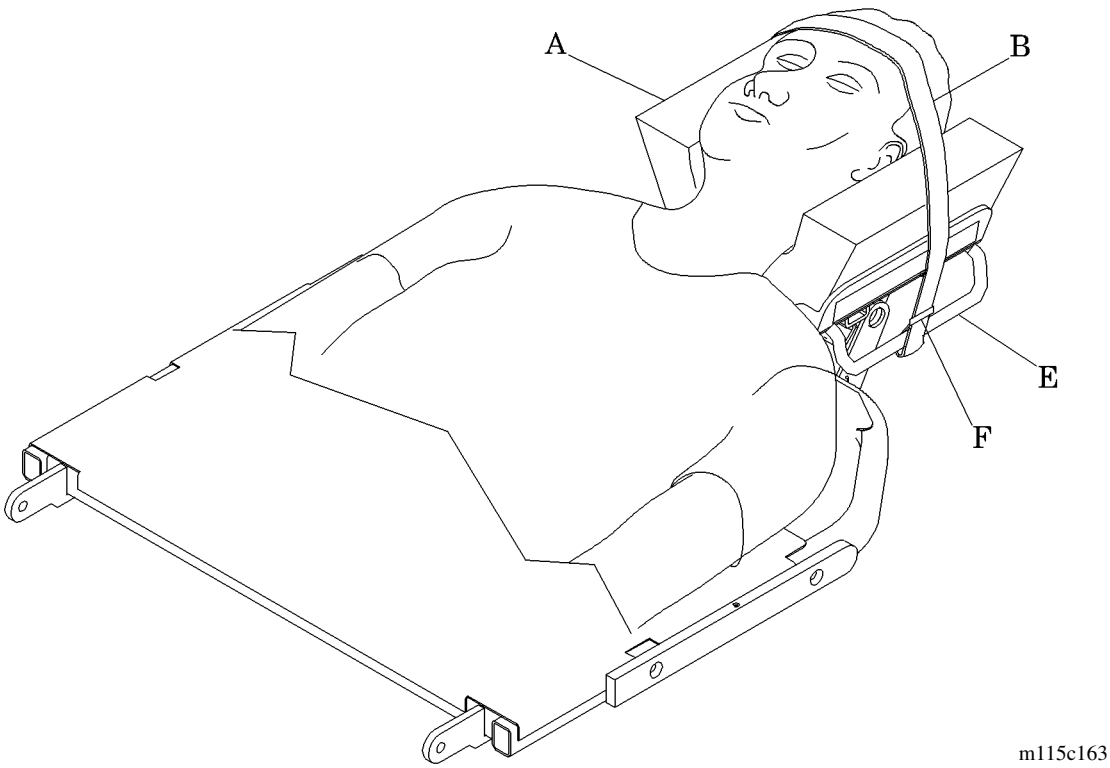
7.23 Head Positioning Strap

The Head Positioning Strap can be attached to the Velcro®[1] strip and the integrated pull handle on the sides of the articulating headrest.

Installation

1. Remove the head positioning strap (B) from the shipping bag (see figure 7-22 on page 7-43).

Figure 7-22. Head Positioning Strap Installation



2. Determine the position of the patient's head in the headrest pad (A).

NOTE:
Make sure the patient's head remains still in the headrest pad (A).

3. Put the end of the head positioning strap (B) around the handle (E) and secure with the self-locking buckle (F).

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

4. Place the head positioning strap (B) over the center of the patient's forehead.

NOTE:
The purpose of the head positioning strap is to remind the patient to remain still in that position; not as a patient restraint. If patient restraint is necessary, it is the caregiver's protocol to determine the type of restraint necessary.

5. Attach the other end of the head positioning strap (B) with a Velcro®[1] strip to the other side of the headrest pad (A).

1. Velcro® is a registered trademark of Velcro Industries, BV (a Dutch corporation).

7.24 Placenta Basin—P265

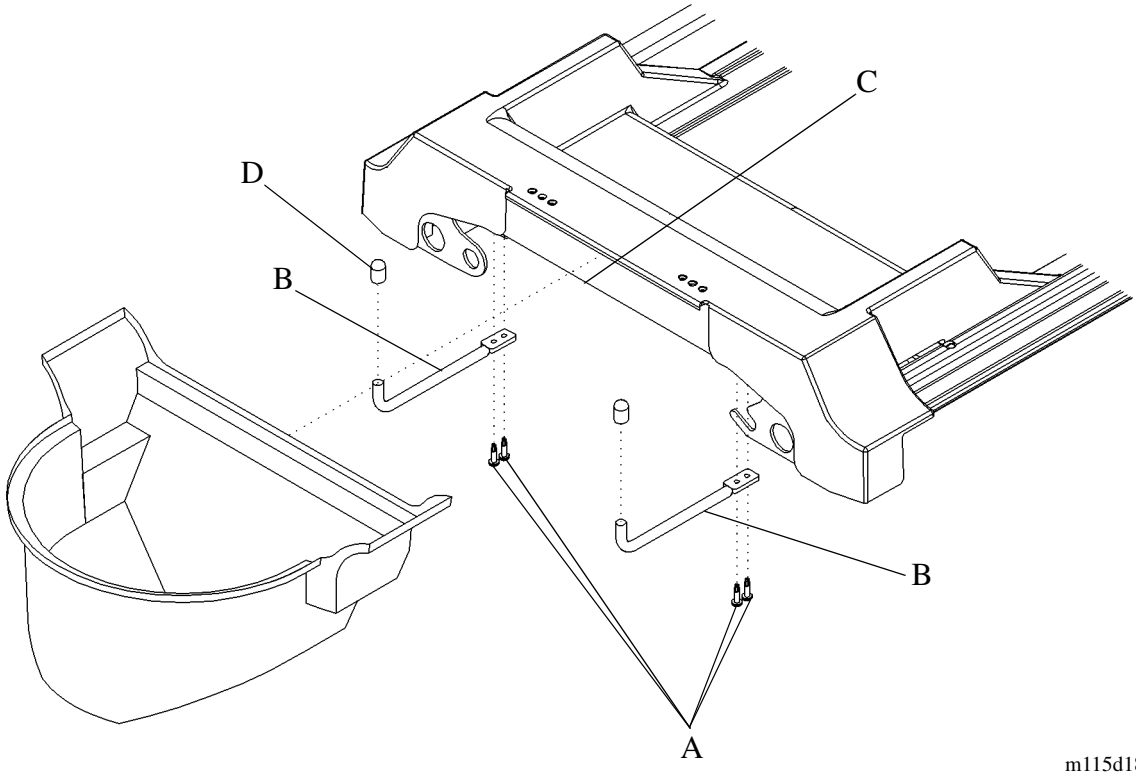
The TranStar® OB/GYN Stretcher Placenta Basin is located below the foot section, between the foot supports, and is easily removed for cleaning.

Installation

Tools required: Ratchet T25 Torx®[1] head bit

1. Using the central brake pedal, place the stretcher into the brake position.
2. Using the hilow operation pedals, raise the stretcher to its highest position.
3. Using the ratchet and T25 Torx® head bit, secure the two support bars (B) to the underside of the upper frame assembly (C) at the foot end of the stretcher with the four screws (A) provided (see figure 7-23 on page 7-45).
4. Install the protective plastic caps (D) on the end of the two support bars (B).

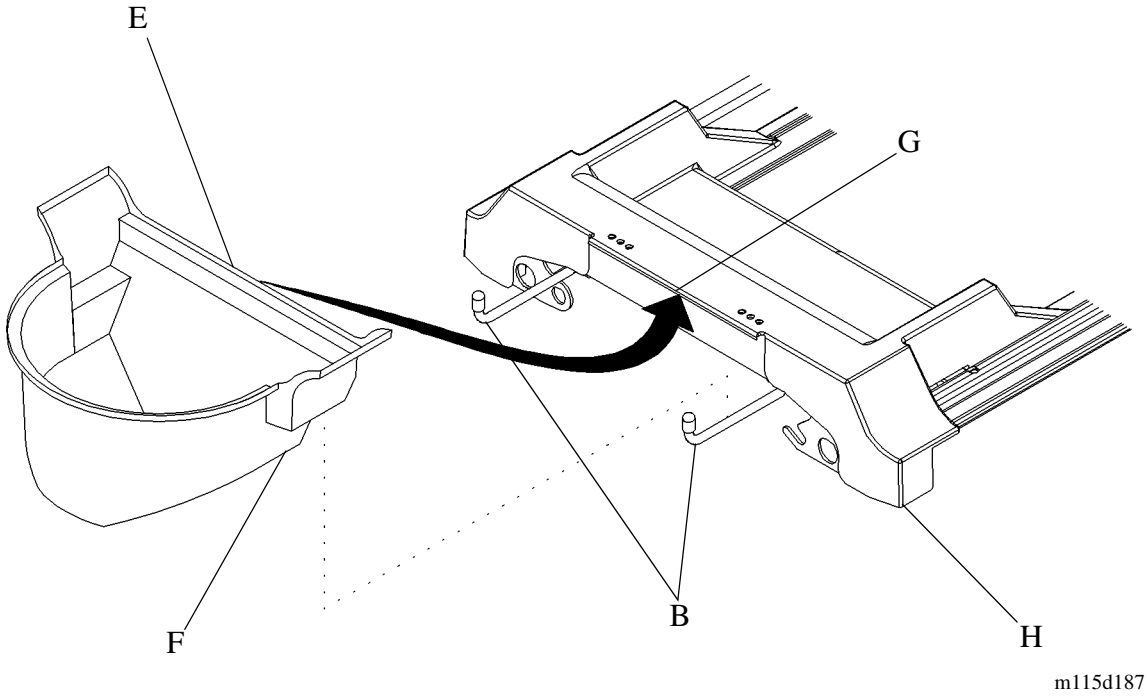
Figure 7-23. Placenta Basin Assembly



1. Torx® is a registered trademark of Textron, Inc.

5. Tilt the straight edge (E) of the placenta basin (F) downward (see figure 7-24 on page 7-46).

Figure 7-24. Placenta Basin Installation



6. Place the straight edge (E) of the placenta basin (F) under the lip (G) of the upper frame catch shroud (H) between the two support bars (B).

7. Lower the placenta basin (F) onto the support bars (B).

8. Ensure the placenta basin (F) is secure by giving a small downward push on the outer edge of the placenta basin (F).

Removal

1. Lift the placenta basin (F) off of the support bars (B).

2. Slide the placenta basin (F) out from under the lip (G) of the stretcher.

3. Remove the placenta basin (F) from the stretcher.

Cleaning

Refer to the section titled “Cleaning and Care” on page 6-3 for proper disinfectant instructions.

7.25 Telescoping Calf Supports—P35745AT

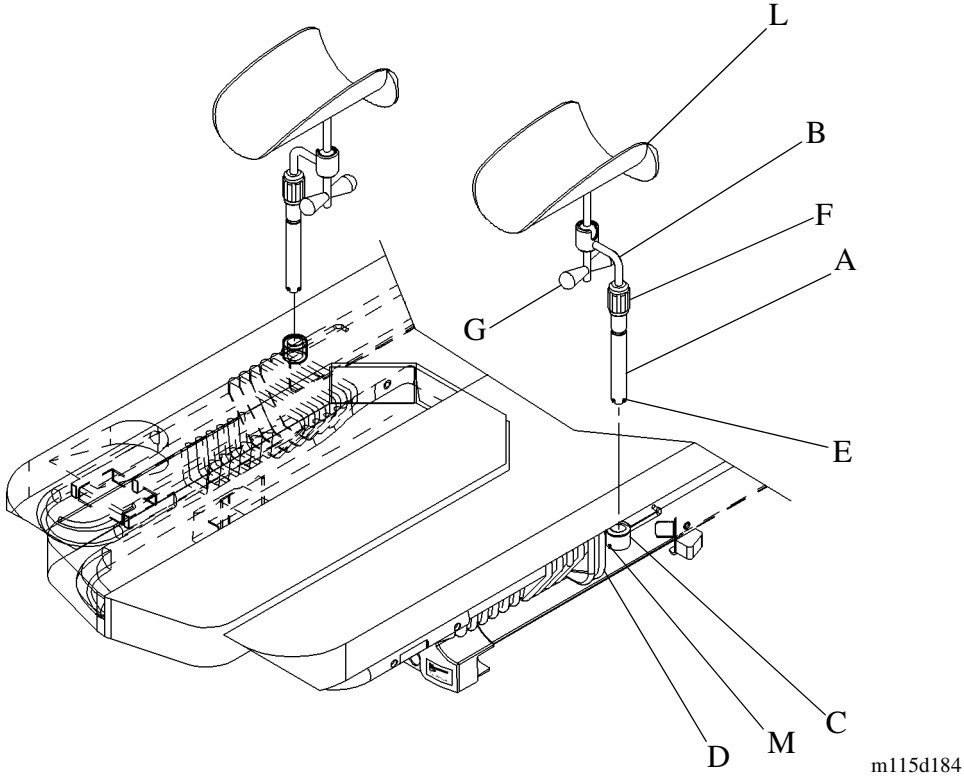
The TranStar® OB/GYN Stretcher Telescoping Calf Supports can be implemented when the stretcher is in the birthing position. The Telescoping Calf Supports are located in their respective positions at the foot end of the stretcher.

Installation

WARNING:
The telescoping calf supports are intended to be used in the prescribed manner only. Failure to use this product as outlined may result in personal injury or equipment damage.

1. Set the central brake pedal to the brake position.
2. Using the hilow operation pedals, raise the stretcher to the desired level position.
3. Insert the telescoping calf support stem (A) of the telescoping calf support assembly (B) into the calf support accessory socket (C) located on either side of the upper frame (D) (see figure 7-25 on page 7-47).

Figure 7-25. Telescoping Calf Support Installation



4. Ensure the notch (E) located on the end of the telescoping calf support stem (A) is fully seated correctly over the pin (M), and in the desired indexed position.

NOTE:
The telescoping calf supports can be indexed inward or outward for different sized patients.

Adjustment

1. Loosen the black knob (F) by turning it counterclockwise, and adjust the calf support higher or lower and inward or outward to the appropriate position.

WARNING:
Insufficient tightening will allow the calf supports to slip and lose their original position. Personal injury could occur.

2. Tighten the black knob (F) by turning it clockwise, and lock the calf support into the desired position.

3. Loosen the twin black knob (G) by turning it clockwise, and adjust the calf support cradle (L) to the desired multiple angular position.

WARNING:
Insufficient tightening will allow the calf support cradles to slip and lose their original position. Personal injury could occur.

4. Tighten the twin black knob (G) by turning it counterclockwise, and lock the calf support cradle (L) into its angular position.

Storage

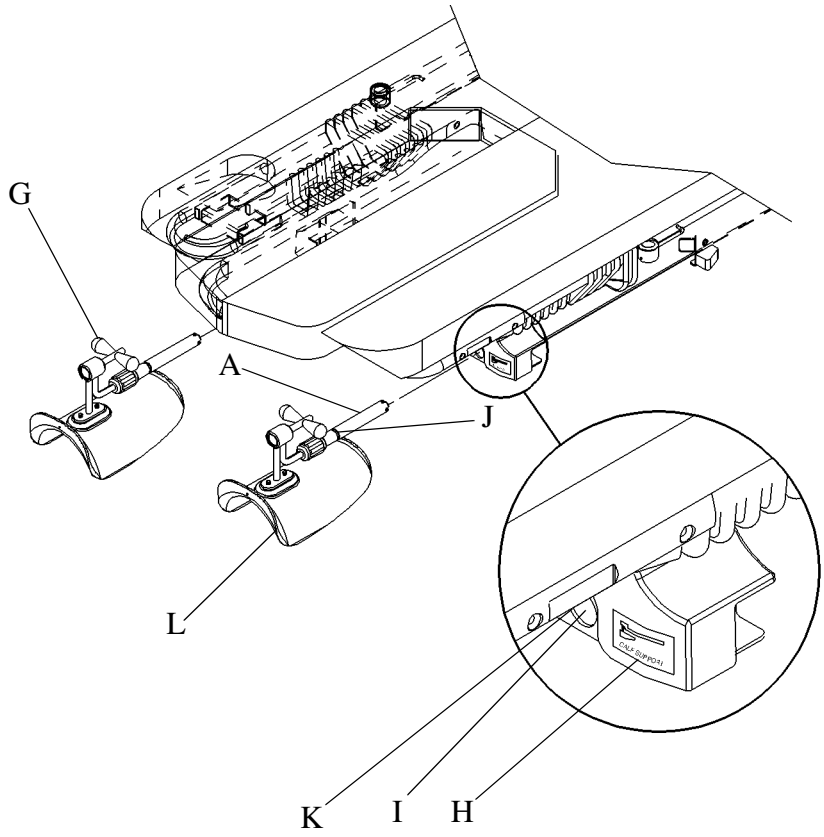
1. Loosen the twin black knob (G), and adjust the calf support cradles (L) into the storage position (see figure 7-26 on page 7-49).

2. Note the telescoping calf support storage label (H) for proper orientation.

3. Slide the telescoping calf support into the telescoping calf support accessory storage hole (I) located on either side of the placenta basin.

4. Ensure the groove (J) located on the calf support stem (A), is seated securely on the edge (K) of the calf support accessory storage hole (I). This will stabilize the telescoping calf supports during stretcher transport.

Figure 7-26. Telescoping Calf Support Storage Location



Cleaning

Refer to the section titled “Cleaning and Care” on page 6-3 for proper cleaning instructions.

7.26 Integrated Fiber Optic Exam Light—P7915AT

Tools required:	Ratchet	T25 Torx®[1] head bit
	Tape measure	Box knife
	Adjustable wrench or 1½" open end wrench	

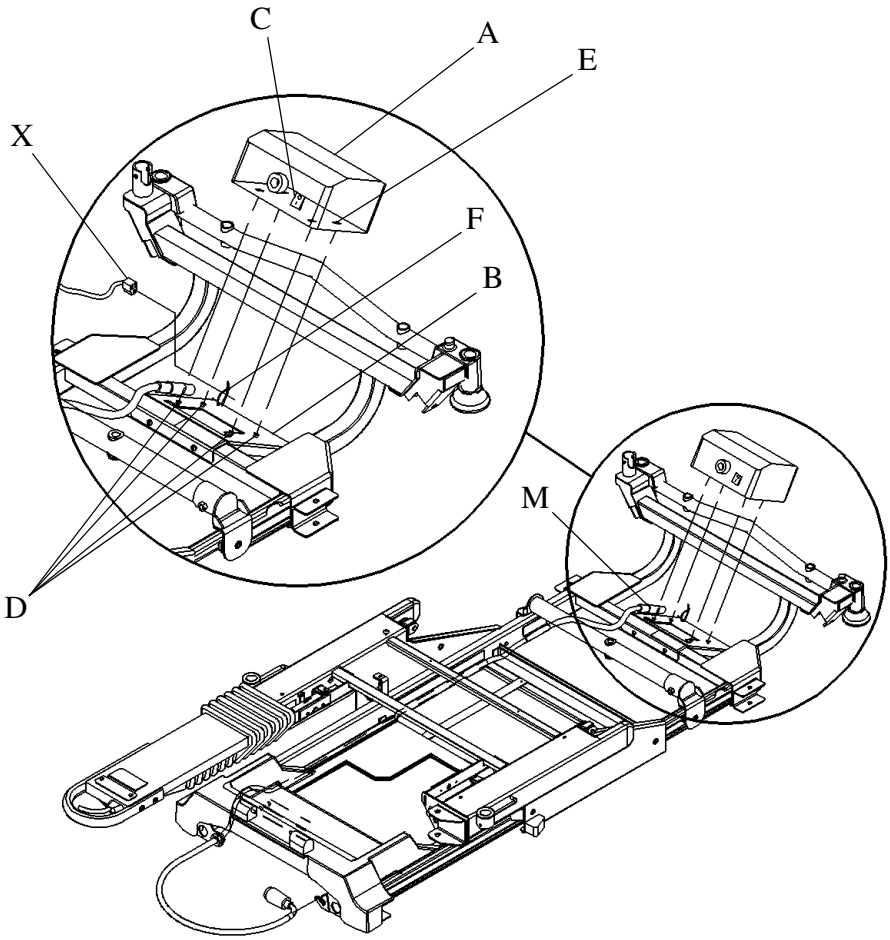
If you are installing the complete (non-factory installed) fiber optic exam light assembly, go to “Complete (Non-Factory Installed) Installation” on page 7-52. Otherwise, go to “Factory Installation” on page 7-50 to complete the factory installation of the fiber optic exam light.

Factory Installation

1. Set the central brake pedal to the brake position.
2. Using the hilow operation pedals, raise the stretcher to the desired level position.
3. Squeeze the back panel release handle, and raise the back section to approximately 90°.
4. Remove the illuminator box (A) from its packaging container (see figure 7-27 on page 7-51).
5. Orient the illuminator box (A) above the light mounting plate (B), so that the power switch (C) is facing toward the foot end of the stretcher.
6. Lower the illuminator box (A) onto the light mounting plate (B), and insert the light mounting plate tabs (D) into the keyhole slots (E) located on the bottom of the illuminator box (A).
7. Slide the illuminator box (A) toward the head end of the stretcher to secure the illuminator box (A) onto the light mounting plate (B).
8. Remove the power cord (X) from its packaging container.
9. Route the power cord (X) through the cable tie (F) on the light mounting plate (B).
10. Plug the power cord (X) into the appropriate connection on the illuminator box (A).

1. Torx® is a registered trademark of Textron, Inc.

Figure 7-27. Illuminator Box Installation



m115d188

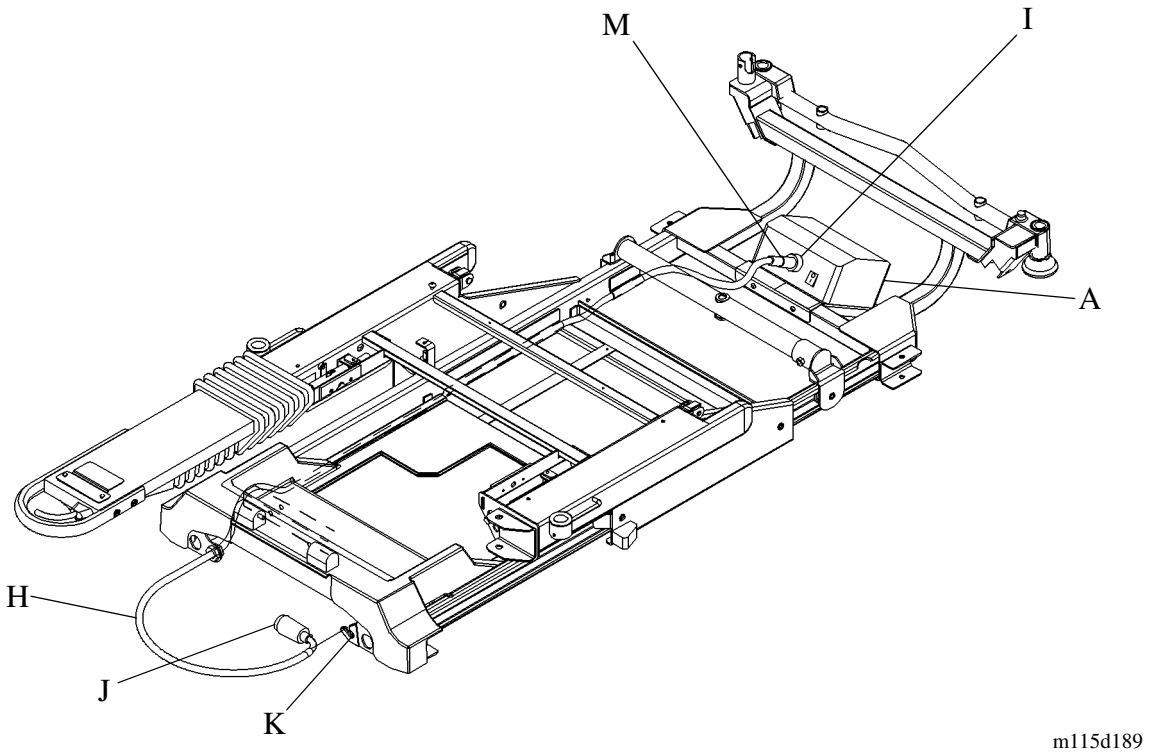
CAUTION:
Ensure the power cord is not pulled too tightly. Tension on the power cord connection could result in equipment damage.

11. Tighten the cable tie (F), and secure the power cord (X) to the light mounting plate (B).

12. Using the box knife, cut the excess cable tie securing the fiber optic cable connector (M) to the stretcher.

13. Connect the fiber optic cable connector (M) to the appropriate connection (I) on the illuminator box (A) (see figure 7-28 on page 7-52).

Figure 7-28. Fiber Optic Cable Assembly



14. Using the box knife, cut and remove the cable tie securing the focusing sleeve (J) to the stretcher.

15. Place the gooseneck assembly (H) into its storage slot (K).

16. Plug the fiber optic exam light into an appropriate power source.

17. Turn the power switch to the ON position, and ensure the fiber optic exam light works properly.

Complete (Non-Factory Installed) Installation

1. Set the central brake pedal to the brake position.

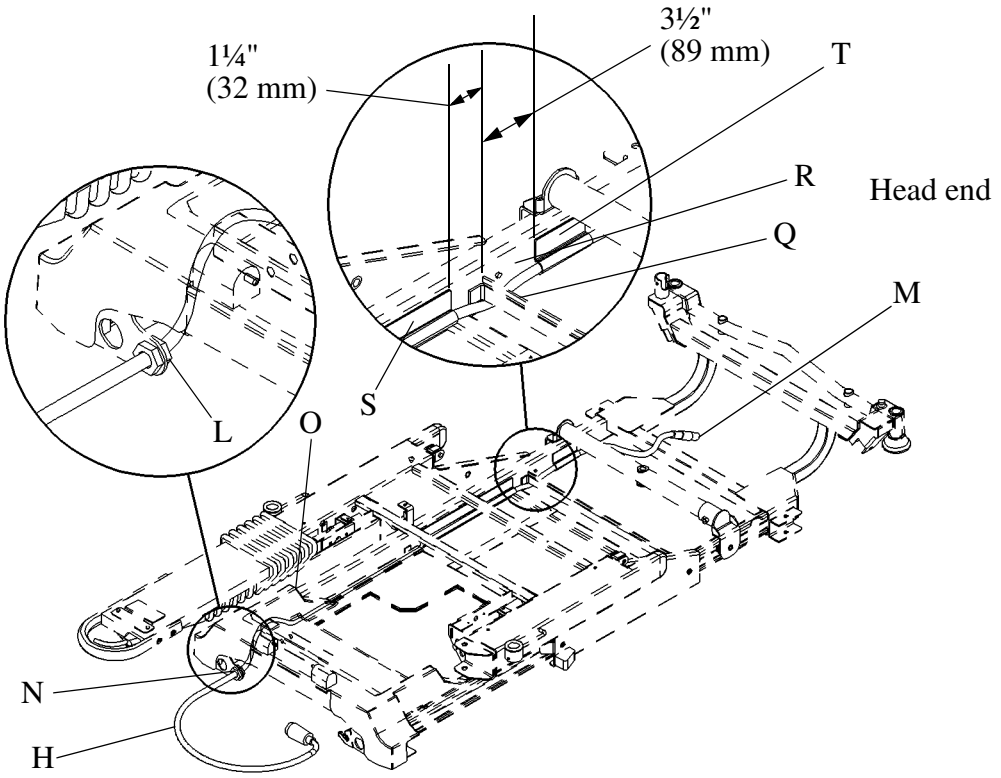
2. Using the hilow operation pedals, raise the stretcher to the desired level position.

3. Squeeze the back panel release handle, and raise the back section to approximately 90°.

4. Remove the fiber optic light assembly from its packaging container.

5. Using the adjustable wrench or 1½" open end wrench, remove the nut (L) from the gooseneck assembly (H) (see figure 7-29 on page 7-53).

Figure 7-29. Gooseneck Assembly



6. Insert the fiber optic cable connector (M) through the available hole (N) at the foot end of the stretcher.

7. Slide the nut (L) over the fiber optic cable connector (M), and hand tighten the nut temporarily to secure the gooseneck assembly (H) to the stretcher.

8. Route the fiber optic cable assembly over the first crossmember and under the catch shroud (O) toward the head end of the stretcher.

9. Using the tape measure, measure 1¼" (32 mm) from the top edge of the welded crossmember (Q) toward the foot end of the stretcher.

10. Using a pencil, mark the correct measurement on the inside of the upper frame fixed weldment (R).

CAUTION:
Ensure the bottom edge of the adhesive shroud is not lower than the bottom edge of the upper frame fixed weldment. Failure to do so could result in equipment damage.

11. Install the long adhesive shroud (S) over the fiber optic cable, and align the left edge on the pencil mark and ensure that the bottom is flush with the upper frame fixed weldment (R).

12. Using the tape measure, measure 3½" (89 mm) from the top edge of the welded crossmember (Q) toward the head end of the stretcher.

13. Using a pencil, mark the correct measurement on the inside of the upper frame fixed weldment (R).

CAUTION:
Ensure the bottom edge of the adhesive shroud is not lower than the bottom edge of the upper frame fixed weldment. Failure to do so could result in equipment damage.

14. Install the short adhesive shroud (T) over the fiber optic cable, and align the right edge on the pencil mark and the bottom flush with the upper frame fixed weldment (R).

15. Complete the routing of the fiber optic cable to the head end of the stretcher.

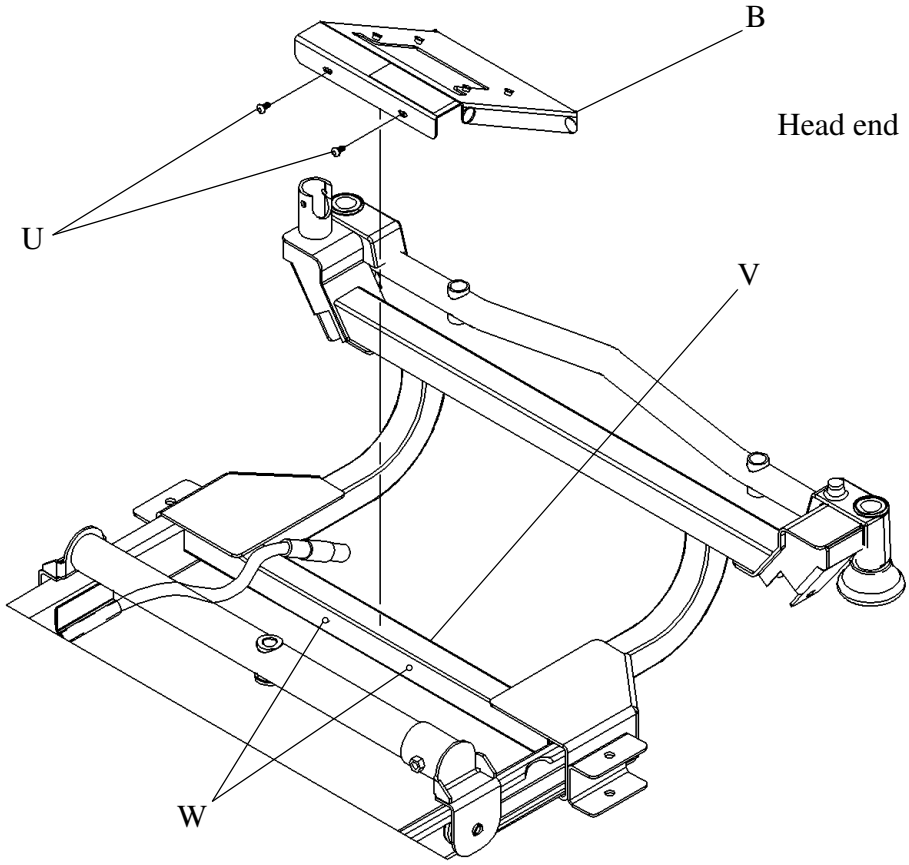
16. Using the adjustable wrench or 1½" open end wrench, apply the blue Loctite®[1] adhesive 242 provided to the nut (L) threads, and tighten the nut (L) to secure the gooseneck assembly (H) to the stretcher.

17. Pull the slack in the fiber optic cable toward the head end of the stretcher.

18. Using the ratchet and the T25 Torx®[2] head bit, install the two Torx® head screws (U) provided. Secure the light mounting plate (B) to the two holes (W) on the upper frame fixed weldment (V) at the head end of the stretcher (see figure 7-30 on page 7-55).

1. Loctite® is a registered trademark of Loctite Corporation.
2. Torx® is a registered trademark of Textron, Inc.

Figure 7-30. Light Mounting Plate Assembly



m115d191

19. Orient the illuminator box (A) above the light mounting plate (B), so that the power switch (C) is facing toward the foot end of the stretcher (see figure 7-27 on page 7-51).

20. Lower the illuminator box (A) onto the light mounting plate (B), and insert the light mounting plate tabs (D) into the keyhole slots (E) located on the bottom of the illuminator box (A).

21. Slide the illuminator box (A) toward the head end of the stretcher to secure the illuminator box (A) onto the light mounting plate (B).

22. Remove the power cord (X) from its packaging container.

23. Plug the power cord (X) into the appropriate connection on the illuminator box (A).

CAUTION:
Ensure the power cord is not pulled too tightly. Tension on the power cord connection could result in equipment damage.

24. Using the cable tie (F) provided, secure the power cord (X) to the light mounting plate (B).

25. Using the box knife, cut the excess cable tie securing the fiber optic cable connector (M) to the stretcher.

26. Connect the fiber optic cable connector (M) to the appropriate connection (I) on the illuminator box (A) (see figure 7-28 on page 7-52)

27. Place the gooseneck assembly (H) into its storage slot (K).

28. Plug the fiber optic exam light into an appropriate power source.

29. Turn the power switch to the ON position, and ensure the fiber optic exam light works properly.

Cleaning

Refer to the section titled “Cleaning and Care” on page 6-3 for proper cleaning instructions.

WARNING:
Do not touch the lamp inside the illuminator box immediately after use. Allow a minimum of 30 minutes for the lamp to cool before replacing it. Failure to do so could result in personal injury and equipment damage.

CAUTION:
Remove the integrated fiber optic exam light assembly before spray washing the stretcher. Failure to do so could result in equipment damage.

7.27 Headboard Assembly—P4120CT

The Headboard Assembly mounts in the headboard mounting sockets located at the head end of the stretcher. The headboard assembly is removable.

Installation

1. Position the headboard vertically, and slide its mounting post into the ISS sockets.

2. Push the headboard downward until it is fully engaged.

Removal

Reverse the installation procedure to remove the headboard assembly from the stretcher.

7.28 Steering Plus™ Steering System Field Upgrade—98V235

Tools required:	3/8" open end wrench	1/8" Allen®[1] wrench
	7/16" open end wrench	5/32" Allen® wrench
	Tape measure	Pliers
	6" straight edge	
	Retaining ring removal/installation tool	

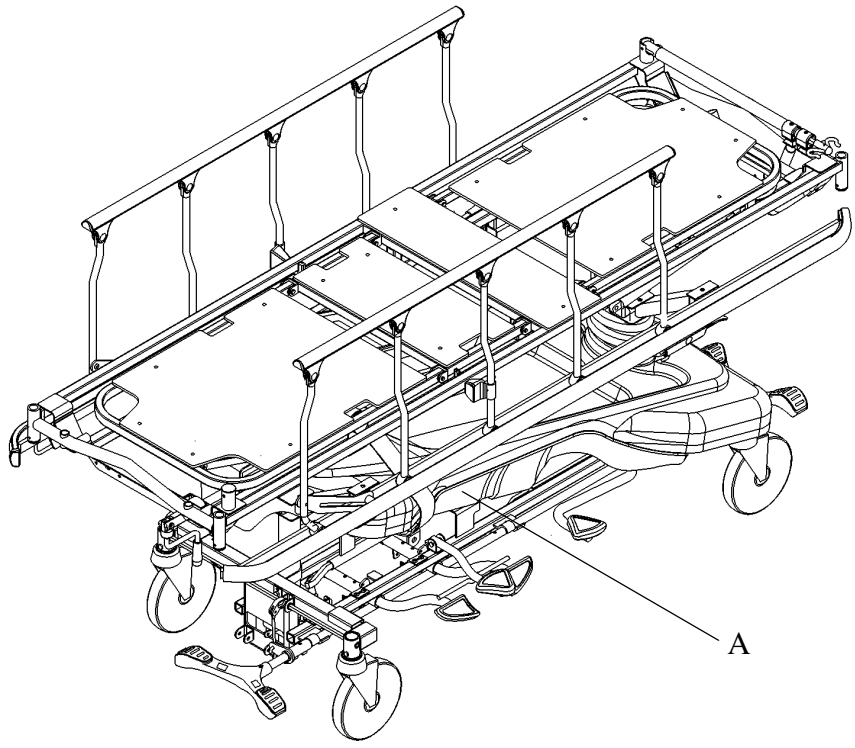
Field Upgrade (Factory Installed) Installation

1. Set the central brake pedal to the brake position.

2. Raise the stretcher to the high position

3. Raise and secure the base shroud (A) to the upper frame to ensure clearance for the fifth wheel assembly upgrade installation (see figure 7-31 on page 7-58). If patient restraining straps are available, use them to secure the shroud to the upper frame. If the patient restraining straps are not available, you can use rope.

Figure 7-31. Shroud Secured to Upper Frame



m115d216

1. Allen® is a registered trademark of Industrial Fasteners, Inc.

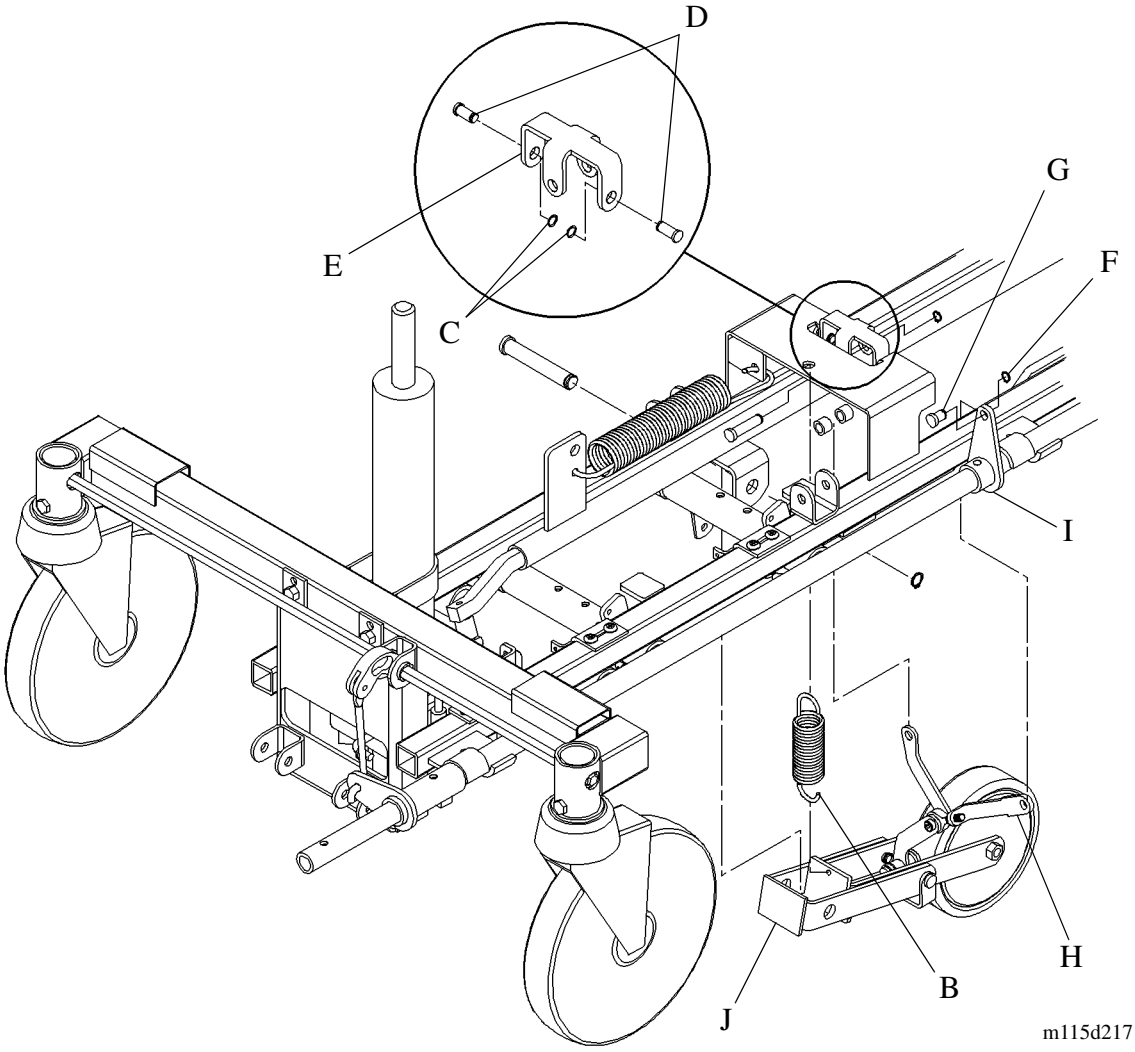
WARNING:
Be careful not to activate the release pedals during the installation procedure. Failure to do so could result in personal injury.

NOTE:
Be careful not to activate the release pedals during the installation procedure.

4. Using the pliers, disconnect and save the spring (B) from the stretcher frame (see figure 7-32 on page 7-59).

5. Using the retaining ring removal/installation tool, remove the retaining rings (C) from the headed pins (D) that secure the pivot link (E) to the stretcher frame.

Figure 7-32. Steering Plus™ Steering System Removal (Old Style)



6. Remove and discard the retaining rings (C), headed pins (D), and pivot link (E).

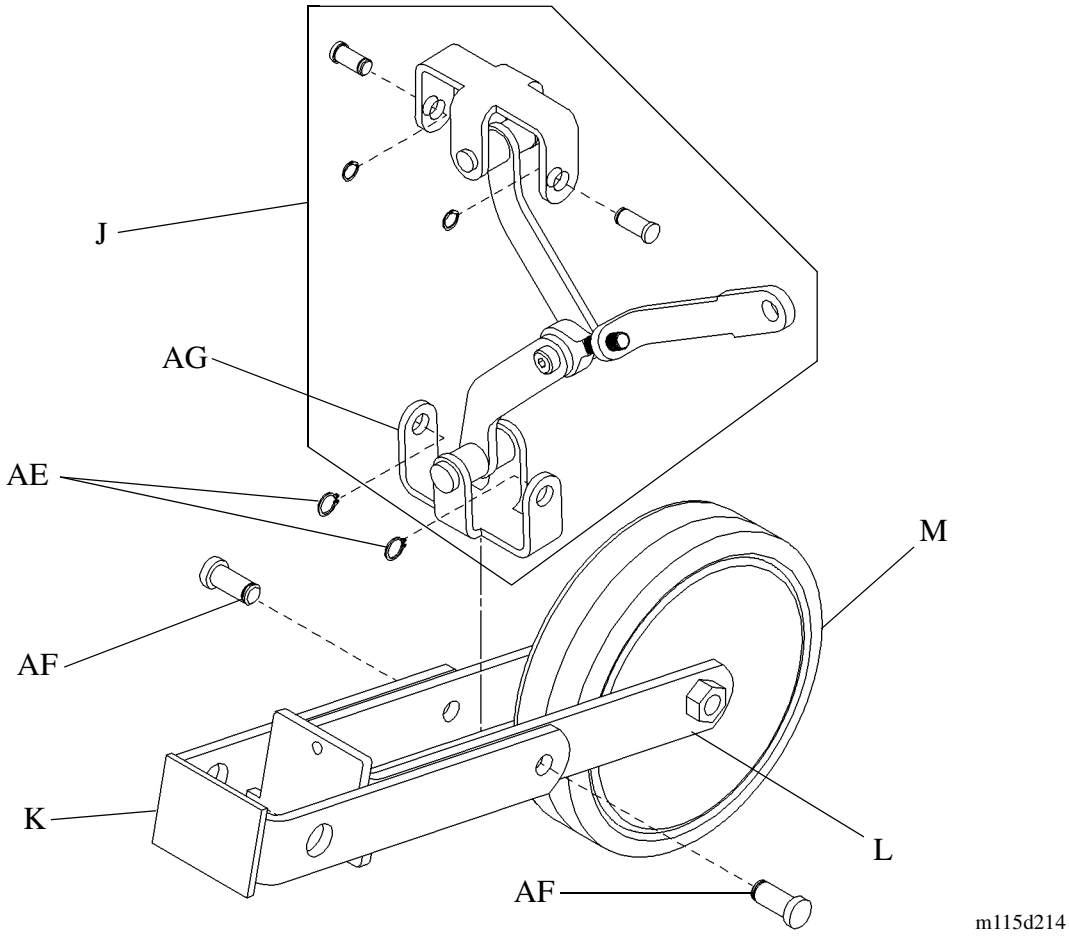
7. Using the 7/16" open end wrench and 5/32 Allen®[1] wrench, remove the locknut (F) from the bolt (G) that secures the pivot bracket (H) to the wheel arm weldment (I).

8. Discard the locknut (F) and bolt (G).

9. Using the retaining ring removal/installation tool, remove the retaining rings (AE) from the headed pins (AF) that secure the pivot link (AG) to the wheel link weldment (K), and wheel mounting bracket weldment (L) (see figure 7-33 on page 7-60).

10. Remove and discard the retaining rings (AE), headed pins (AF), and pivot link (AG).

Figure 7-33. Old Fifth Wheel Assembly Removal



1. Allen® is a registered trademark of Industrial Fasteners, Inc.

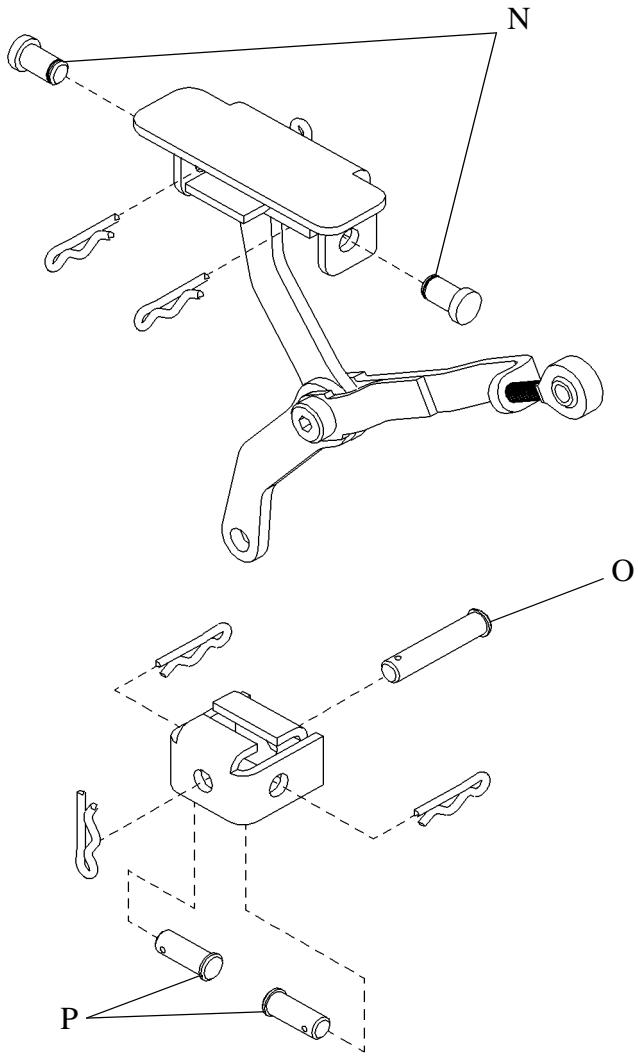
11. Remove the old fifth wheel assembly (J) from the stretcher.

12. Discard all remaining parts from the old fifth wheel assembly (J), excluding the wheel link weldment (K), wheel mounting bracket weldment (L), and caster assembly (M).

Install the new fifth wheel assembly upgrade by performing the following steps:

1. Remove the five headed pins (N, O, and P) from the new fifth wheel assembly (see figure 7-34 on page 7-61).

Figure 7-34. New Fifth Wheel Disassembly



2. Install the two headed pins (T) and two hairpin cotters (U), securing the universal box weldment (V) to the wheel mounting bracket weldment (L) and wheel link weldment (K) (see figure 7-35 on page 7-63).

3. Install the headed pin (W) and hairpin cotter (X), securing the pivot linkage (S) to the universal box weldment (V).

NOTE:
You may need to rotate the universal box weldment to gain easier access to the installation hole for the headed pin.

4. Install the two pins (N) and two hairpin cotters (Q), securing the fifth wheel bracket weldment (R) and pivot linkage (S) to the stretcher frame (see figure 7-36 on page 7-64).

NOTE:
Note the proper orientation and position of the fifth wheel bracket weldment.

5. Using the 3/8" open end wrench and 1/8" Allen®[1] wrench, install shoulder bolt (Z) and nut (AA), securing the rod end (AB) to the wheel arm weldment (I) (see figure 7-35 on page 7-63).

NOTE:
Note the proper position of the rod end relative to the wheel arm weldment (see figure 7-37 on page 7-64).

6. Using the pliers, install the spring (B) to the stretcher frame and to the wheel mounting bracket weldment (L) (see figure 7-35 on page 7-63).

7. Check for proper alignment of the caster steer adjustment. See the section titled “Adjustment” on page 7-65 for proper adjustment procedures.

1. Allen® is a registered trademark of Industrial Fasteners, Inc.

Figure 7-35. New Fifth Wheel Upgrade Installation

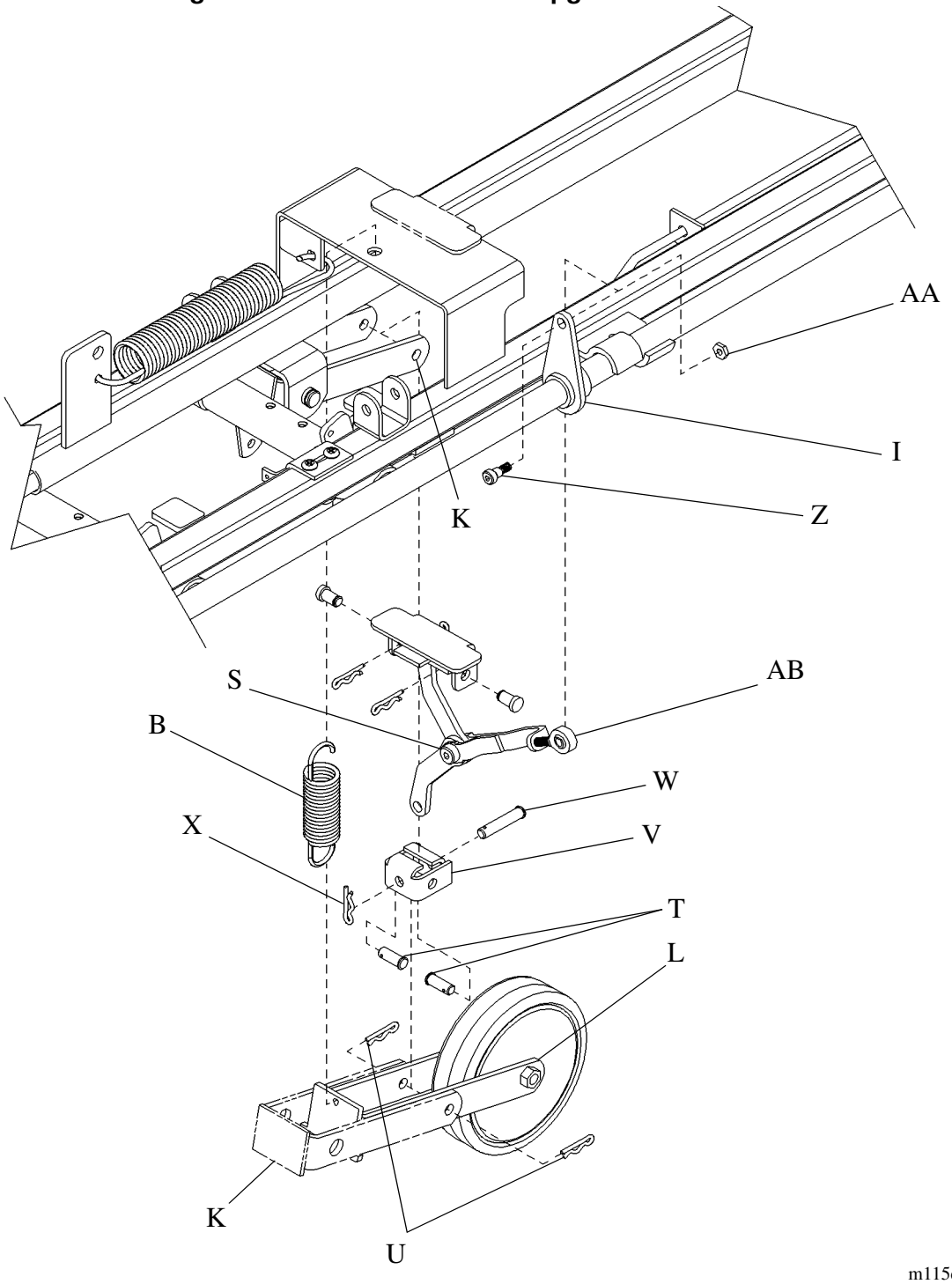
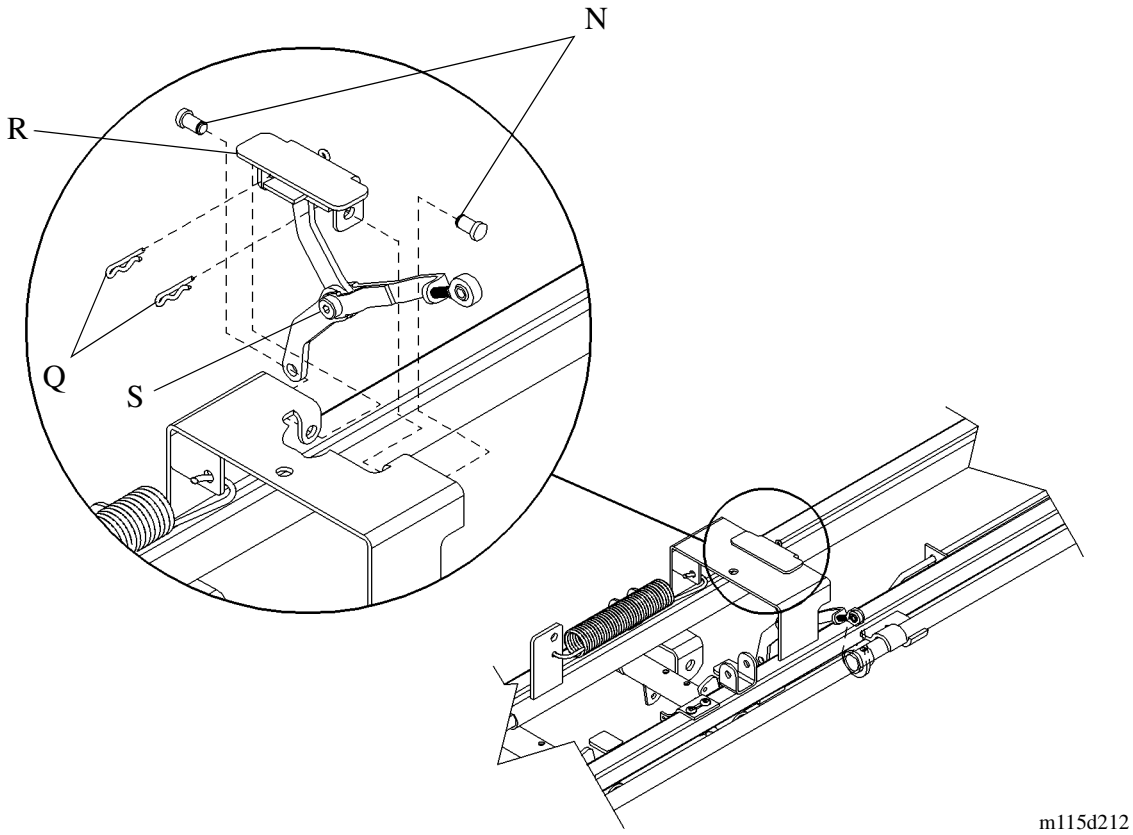
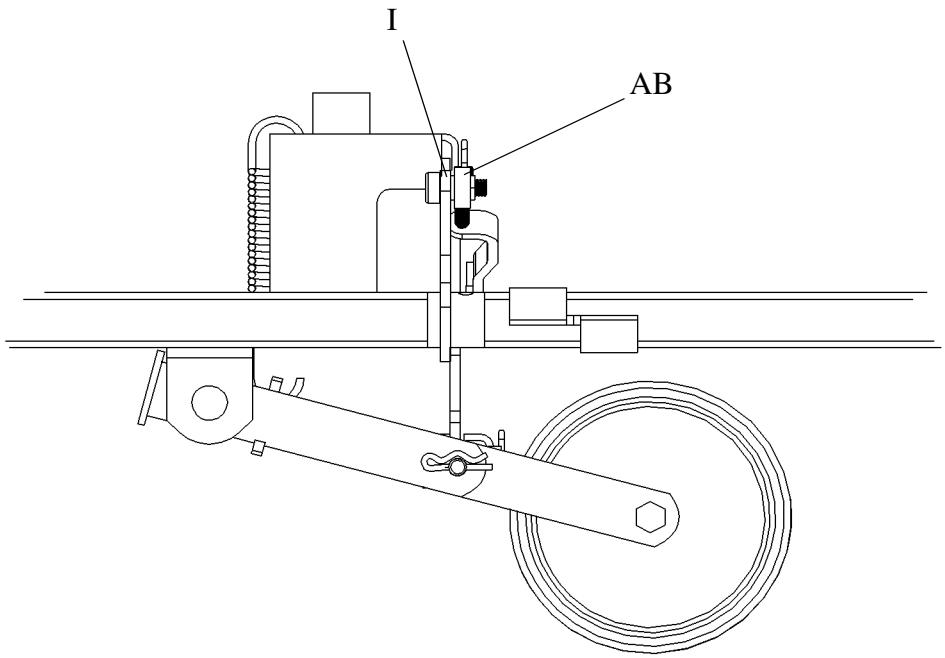


Figure 7-36. Fifth Wheel Bracket Weldment Installation



m115d212

Figure 7-37. Fifth Wheel Assembly



m115d219

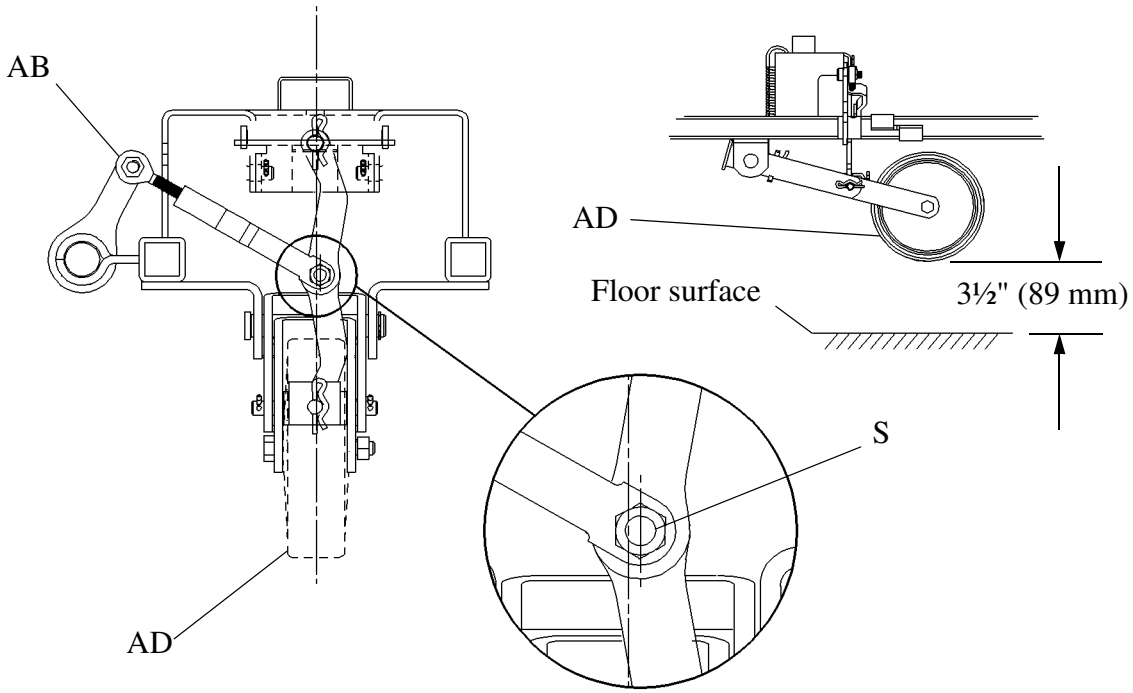
Removal

Reverse the installation procedure to remove the fifth wheel assembly from the stretcher.

Adjustment

1. Place the fifth wheel into the brake position.
2. Using a tape measure, ensure the bottom of the fifth wheel caster (AD) is at a minimum height of 3½" (89 mm) above the floor surface (see figure 7-38 on page 7-65).

Figure 7-38. Fifth Wheel Adjustment



3. Adjust the rod end (AB), if necessary, by performing the following steps:
   a. Using the 3/8" open end wrench and 1/8" Allen®[1] wrench, remove the shoulder bolt (Z) and nut (AA), securing the rod end (AB) to the fifth wheel arm weldment (I) (see figure 7-35 on page 7-63).

1. Allen® is a registered trademark of Industrial Fasteners, Inc.

b. Turn the rod end (AB) clockwise/counterclockwise to the desired position, so that the bottom of the fifth wheel caster (AD) is at a minimum height of 3½" (89 mm) above the floor surface (see figure 7-38 on page 7-65).

4. Temporarily install the shoulder bolt (Z) and nut (AA) that secure the rod end (AB) to the wheel arm weldment (I) (see figure 7-35 on page 7-63).

5. Place the fifth wheel caster (AD) into the steer position (see figure 7-38 on page 7-65).

6. Using the 6" straight edge, ensure the pivot linkage (S) center line is past the fifth wheel caster (AD) centerline.

7. Adjust the rod end (AB), if necessary, by performing the following steps:

   a. Remove the shoulder bolt (Z) and nut (AA), that secures the rod end (AB) to the wheel arm weldment (I) (see figure 7-35 on page 7-63).

   b. Turn the rod end (AB) clockwise/counterclockwise to adjust the pivot linkage (S) alignment (see figure 7-38 on page 7-65).

8. Using the 3/8" open end wrench and 1/8" Allen®[1] wrench, install and tighten the shoulder bolt (Z) and nut (AA), securing the rod end (AB) to the fifth wheel arm weldment (I) (see figure 7-35 on page 7-63).

9. Check all adjustments, and ensure that they are correct.

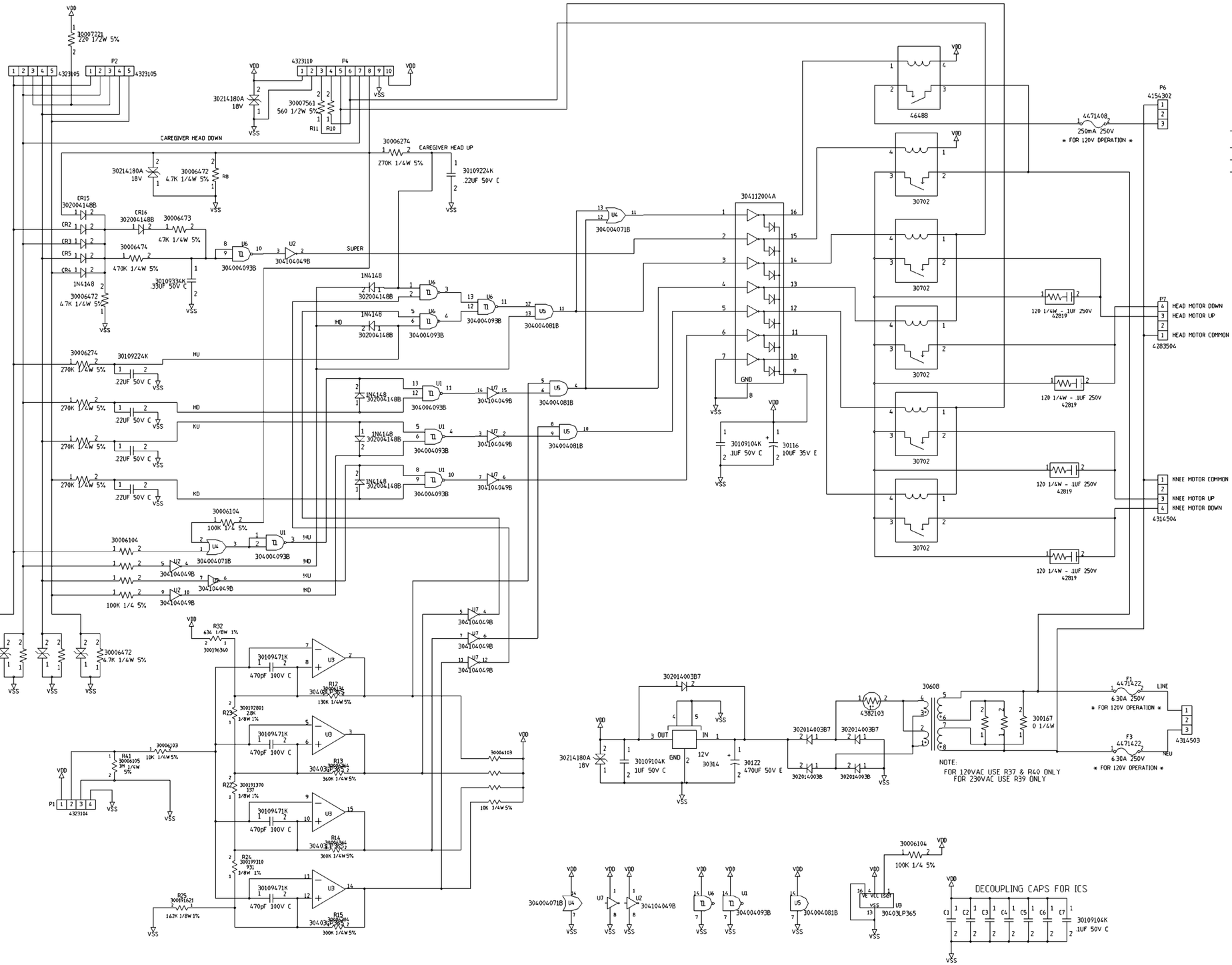
Cleaning

Refer to the section titled “Cleaning and Care” on page 6-3 for proper cleaning instructions.

1. Allen® is a registered trademark of Industrial Fasteners, Inc.

Schematic Wiring Diagram—Control Board P/N 49603

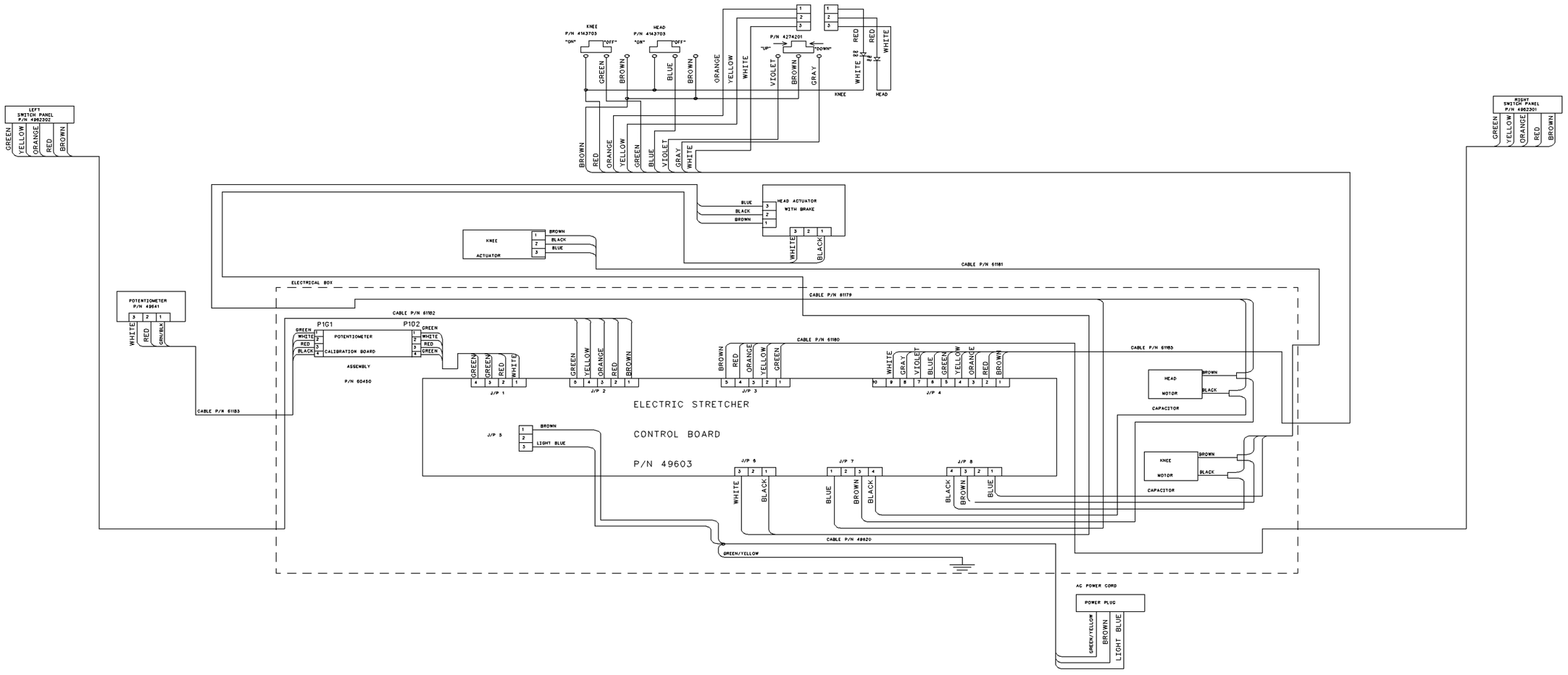
Back to Chapter 3



m115b132

Schematic Wiring Diagram—Electric Stretcher P/N 60389

Back to Chapter 3



m115c131

FO 3-2